

# Embedding resilience in B2B networks: insights from a Swedish recycling firm

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## Abstract

**Purpose** – This study aims to examine how a focal firm in Sweden’s recycling sector draws on embedded interorganizational ties to strengthen network resilience across its business-to-business (B2B) relationships. It draws on the concepts of embeddedness and the interaction model to understand how firms develop strategies for long-term network stability using Sweden’s recycling sectors as empirical context.

**Design/methodology/approach** – This paper adopts a qualitative case study approach, drawing on semi-structured interviews with department managers and sales personnel in a Swedish recycling firm. The analysis follows an abductive framework informed by literature on resilience and embeddedness.

**Findings** – This study finds that firms foster network resilience by modulating the level of social embeddedness in response to situational factors such as profitability, regulatory demands, industry pressures and the need for process efficiency. In more complex or regulated collaborations, firms invest in trust-building, continuous communication and mutual adaptation, thereby creating resilient ties capable of withstanding market turbulence.

**Originality/value** – This paper advances a contingency view of embeddedness in B2B networks, conceptualizing it as an adjustable governance mechanism calibrated to situational conditions. By integrating the interaction model with embeddedness, this study specifies when oversocialized vs undersocialized approaches are effective and how they are combined with contractual mechanisms to generate network resilience. The Swedish recycling context provides sector-specific evidence that illustrates – rather than delimits – the mechanisms.

**Keywords** Network resilience, Embeddedness, Interaction model, Recycling industry, Strategic action, B2B relationships, Sweden

**Paper type** Research paper

## 1. Introduction

Today’s business landscape has become increasingly adaptive to the diverse and complex demands of interfirm collaboration. Recent global developments such as the COVID-19 pandemic, rising awareness of sustainability and growing geopolitical uncertainties have intensified the need for strategic resilience in business-to-business (B2B) networks (Bondeli and Havenvid, 2022). In this context, resilience refers to firms’ capabilities to adapt, recover and grow following unforeseen disruptions, whether financial, operational or social including the ability to sustain key B2B relationships and coordination under strain (Sinha and Ola, 2021). Within B2B networks, resilience is closely connected to the quality and structure of network relationships, which serve as channels for knowledge exchange, innovation and collaborative problem-solving (Tobiassen and Pettersen, 2023).

These relationships defined as interconnected links between firms span a continuum from formal contractual partnerships to informal alliances and play a vital role in shaping firms’ market competitiveness and long-term viability (Gulati *et al.*, 2012). As such, these relationships are not solely transactional; they often reflect varying strategic intentions. The concept of

embeddedness offers an analytic lens to understand this variation, contrasting undersocialized views relationships as instruments for economic gain with oversocialized views that emphasize shared values, trust and mutual development (Bilro *et al.*, 2023; Granovetter, 1985; Gulati *et al.*, 2012; Powell, 1990). This theoretical distinction helps explain the range of motivations guiding B2B firms in constructing resilient and sustainable partnerships.

In the sustainability discourse, especially in Sweden’s recycling sector, resilience has become a critical component of long-term business success, particularly within inter-organizational networks (Bilro *et al.*, 2023; Salmenperä, 2021; Tobiassen and Pettersen, 2023). As firms increasingly operate within complex ecosystems, their ability to adapt, recover and evolve in response to environmental, social and economic disruptions is no longer optional as it is strategic. Building on this embeddedness lens, this study situates resilience within broader sustainability priorities, where value creation increasingly spans economic, social and environmental goals.

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While profitability continues to be a central motivator for maintaining business relationships, there is growing recognition that value creation must also address broader societal and environmental goals (Bilro *et al.*, 2023). In today's business networks, the actions of individual firms have ripple effects that extend across entire value chains, underscoring the need for collaboration toward resilience.

These theoretical developments are especially relevant in industries where sustainability is not only a goal but a core expectation. The recycling industry, for example, plays a central role in enabling circular economy models and thus holds heightened responsibility in driving environmental transformation. Firms in this sector are expected to move beyond transactional motives and cultivate partnerships based on mutual value creation, trust and long-term collaboration (Dubink *et al.*, 2008; Šehić and Pešek, 2020). In the context of Sweden – a country widely profiled as a high-performing recycling society with mature policy instruments and infrastructure – these expectations are further amplified (Salmenperä, 2021). However, despite its strategic and societal importance, the role of organizational embeddedness and business network resilience in the Swedish recycling industry remains underexplored.

This study adopts a qualitative research approach to investigate a focal firm within their B2B networks to build resilience in an increasingly dynamic and uncertain environment. Although prior research has examined strategic decision-making within B2B contexts (Bondeli and Havenvid, 2022; Linnenluecke, 2017; Törmälä & Saraniemi, 2018), less is known about the drivers and relationship-level actions through which firms develop resilience-oriented strategies across interdependent B2B network ties.

Earlier B2B studies show that embedded ties built on trust, mutual adjustment and knowledge exchange support firm outcomes under turbulence (e.g. Bondeli and Havenvid, 2022; Granovetter, 1985; Gulati *et al.*, 2012; Runfola *et al.*, 2023; Tobiassen and Pettersen, 2023; Törmälä & Saraniemi, 2018). However, it remains unclear how these relationship dynamics are mobilized during disruption episodes in circular-economy settings, particularly recycling, where interdependencies, capacity constraints and coordination demands are salient. Empirical evidence from Sweden's recycling ecosystem is also limited. Against this backdrop, we examine how a focal firm in Sweden's recycling sector draws on embedded interorganizational ties to strengthen network resilience across its B2B relationships. To deepen our understanding of how strategic decision-making contributes to resilience in B2B network, this study poses the following research question:

*RQ1.* How does a focal firm use embedded interorganizational ties to strengthen network resilience across its B2B relationships in Sweden's recycling sector?

While the study is accessed through a focal firm, the analysis focuses on relationship-level mechanisms through which resilience is enacted across interdependent B2B network ties.

## 2. Literature review

In this section, the theoretical premise for this study is presented, which develops the conceptual framework, Figure 1. The theoretical discussion laying the foundation for this study's

research focus includes B2B network relations, resilience, the concept of embeddedness and the interaction model.

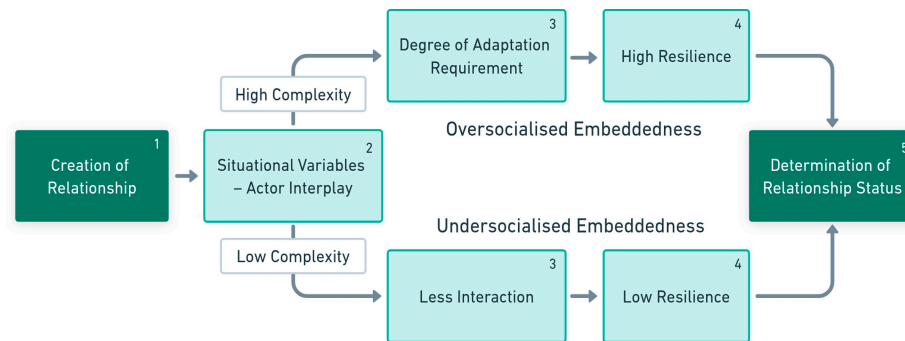
### 2.1 Business-to-business and network resilience

B2B refers to the commercial activities, relationships and transactions that occur between firms rather than between firms and individual consumers (Still *et al.*, 2018). Typically, these engagements involve knowledge-intensive services, collaborative activities, complex decision-making processes and exchange of goods and services (Heikka and Nätti, 2018; Still *et al.*, 2018). In B2B contexts, the focus often centers on long-standing collaborations and shared advantages to succeed in highly competitive and rapidly changing markets (Alajoutsijärvi *et al.*, 2012). According to Grewal and Sridhar (2021), the social influence of collaborations in B2B networks is immensely similar to those of business-to-consumer (B2C) relationships. However, due to the distinctive position that B2B network partners hold, the dynamics within these networks are viewed as more complex. While each partner has its own objective to reach in the partnership, the entire network collectively works together to achieve a set goal ultimately leading to competitive advantage. This complexity is particularly relevant when considering resilience, as disruptions in B2B markets rarely remain isolated within a single firm (Gadde and Håkansson, 2023). Instead, resilience increasingly depends on how interdependent actors jointly anticipate, absorb and respond to uncertainty. Thus, resilience in B2B contexts should be understood not only as an internal organizational capability but as a relational and network-based phenomenon.

Unlike B2C markets, B2B relationships often span entire supply chains and industry ecosystems. Partners exchange knowledge, coordinate processes and align strategies over extended periods to maintain competitiveness (Gulati *et al.*, 2012). This high degree of interdependence means that disruptions, such as supply interruptions, market volatility or regulatory changes, can spread quickly across networks (Bondeli and Havenvid, 2022; Tobiassen and Pettersen, 2023). Gadde and Håkansson (2023) suggest that actors must confront their network partners in breaking routines or organized structures to achieve common goals. This is crucial to initiating a space where action is taken and change is made. From a resilience perspective, this implies that networks must possess adaptive capacity, that is, the ability to reconfigure routines, redistribute responsibilities and realign resources when facing disruption. Rather than viewing resilience as a static outcome, literature positions it as a dynamic process shaped by interactions, coordination and strategic adjustment.

To ensure this operational continuity and long-term viability in the corporate sphere, firms require organizational capabilities that enable them to anticipate, adjust to and recover from unforeseen difficulties (Lopez *et al.*, 2024; Sadrabadi *et al.*, 2024). These organizational capabilities are closely tied to Sinha and Ola's (2021) definition of resilience. Businesses that demonstrate resilience devise strategies and frameworks that allow them to withstand market or supply chain disruption and subsequently rebound effectively (Sadrabadi *et al.*, 2024).

In B2B contexts, resilience is increasingly viewed as a property of networks rather than of single firms. Strong and adaptive relationships enable information sharing, collaborative

**Figure 1** Identifying the degree of resilience in embedded network relations

Source: Authors' own work

innovation and coordinated responses to uncertainty, which help maintain value creation during disruptions (Scholten and Schilder, 2015; Ivanov, 2022). Network resilience is supported by factors such as trust between partners, shared goals, flexible communication channels and the ability to realign resources when external conditions change (Christopher and Peck, 2004; Gadde and Håkansson, 2023; Pettit *et al.*, 2010). These insights highlight that resilience emerges not only from internal preparedness but also from the strength and adaptability of interorganizational ties. The literature also suggests that resilience is not automatically generated through collaboration alone. Networks may become vulnerable when partners hold misaligned priorities, when trust is weak or when coordination breaks down. Thus, resilience is best understood as contingent upon relational dynamics and the continuous negotiation of shared value and strategic intentions.

As Gadde and Håkansson (2023) find in their study on network dynamics and action space, in a situation of challenge or defeat, a single firm is unable to make the necessary changes to recover fully. These moments require a support system, ultimately being network partners. It is also highlighted that this type of interaction necessitates closer engagement with relevant actors - to determine actors' level of motivation toward shared goals, lack thereof or potential tensions that may disrupt smooth business relations. In coordination with this, Runfola *et al.* (2023) delve into the importance of identifying the intentions behind actors' behavior. Without aligning these intentions among the network actors, it can create a larger impact on the entire network. With opposing intentions, the businesses involved will ultimately be less resilient to changes in the business environment. In an increasingly diverse business atmosphere, recent research stresses that firms must be aware of their environment and adept at making appropriate changes.

Taken together, these studies suggest that resilience in B2B networks consists of both structural and relational dimensions. Structurally, resilience depends on the network's capacity for coordination and resource adjustment (Pettit *et al.*, 2010). Relationally, it depends on trust, shared intentions and the willingness of actors to remain engaged when under strain (Runfola *et al.*, 2023; Gadde and Håkansson, 2023). This conceptualization establishes the foundation for empirical investigation, where resilience is analyzed through how firms strategically embed themselves in interorganizational

relationships to sustain adaptive and coordinated responses to disruption.

## 2.2 Concept of embeddedness

Network relationships between firms are built on the notion that each firm will respectively gain from the partnership, meaning they will benefit from the shared resources and capabilities to meet their consumers' demands (Baraldi *et al.*, 2024; Yaqub, 2013). Baraldi *et al.* (2024) specify that B2B relational networks are the foundation for a firm's strategic actions and therefore emphasizes that social interactions do have a significant impact on firms' performance.

This perspective lays the foundation for Granovetter's (1985) concept of embeddedness, delving into how social interactions impact behavior and organizations. Ultimately, this unfolds an opportunity to further understand how to enhance network resilience and the significance economic action has on social relations in B2B contexts. The concept of embeddedness largely argues that economic action is immensely influenced by non-economic factors, like social exchanges (Granovetter, 1985). These social exchanges are sculpted by the relationship partners sustaining each other's expectations, driving new opportunities and enhancing competitive advantage (Powell, 1990).

Granovetter (1985) also highlights that economic actors are not controlled by their surrounding environment, but they are influenced by its complexity. Thus, it is noteworthy to consider both the undersocialized and oversocialized views of embeddedness. The undersocialized view emphasizes that economic actors make logical and reasoned decisions, solely encompassing a profit-driven perspective disregarding external impact (Granovetter, 1985). Magnifying profitability and firm effectiveness are the main objectives when firms hold this undersocialized view (Granovetter, 1985; Uzzi, 1997). In this case, social relations are considered disruptive and ineffective. While Powell (1990) argues that social exchanges and economic actors are intricately correlated, Uzzi (1997) suggests that short-term relations enable a lack of dependence on their network partners, circumvent competitors and lowers costs. In the case of a monopoly, the undersocialized view is most appropriate as one individual firm makes all strategic actions (Dana and Fong, 2011). It can thus be assumed that in more highly concentrated markets with high competition, social interactions may be more effective (Granovetter, 1985).

In contrast to this, the oversocialized view suggests that shared norms and values have an immense influence on network relationships and social interactions between economic actors (Granovetter, 1985). These interactions develop shared practices and create patterns of behavior which ultimately alter what and how decisions are made (Granovetter, 1985). Larson (1992) proposes that individuals are influenced by their past experiences, making all opinions and decisions a reflection of the accumulated experiences and knowledge (Lassila et al., 2023). Thus, this argument suggests that economic actions, being a strategic action, must be impacted by prior social interactions, like sharing industry expertise and resources with network partners. Hence, it is advocated that communication and trust are two factors crucial to enhancing firm performance (Bilro et al., 2023; Uzzi, 1997).

Additionally, a network partner's reputation is a determining factor in firms' decisions to invest in the relationship, as partnering with a poorly regarded firm can cause negative brand reputation and hinder resilience (Lassila et al., 2023). Beyond reputation, trust, satisfaction and demonstrated profitability are three key factors for sustaining and strengthening such relationships (Rajagopal and Rajagopal, 2009).

With an oversocialized view on embeddedness, there is considered to be greater benefit in valuing social exchanges to enhance network efficiency rather than solely focused on monetary gain (Granovetter, 1985; Yaqub, 2013). Conversely, the undersocialized view argues that social beings disrupt firm profitability and that being solely profit-driven enables a lack of dependence on other network partners (Bilro et al., 2023; Granovetter, 1985; Uzzi, 1997).

### 2.3 Interaction model

The interaction model, proposed by Håkansson and Östberg (1975), provides a comprehensive framework for analyzing B2B transactions in industrial markets, emphasizing that relationships form within interconnected networks rather than unfolding as isolated exchanges. Power balances and dependency evolve over time, reflecting the dynamic nature of interactions driven by social exchange and continuous mutual adjustments (Cristofaro et al., 2024; Håkansson and Snehota, 2024).

A core feature of this model is the 'situational variables', which are the contextual conditions under which interaction between businesses begins. The model states that these variables include the characteristics of the parties, exchange and the broader market and environment, collectively influencing how firms cooperate, innovate and address conflict (Abrahamsen and Håkansson, 2016; Håkansson et al., 2009). These situational variables do not only shape how firms begin to cooperate but also influence the potential for value co-creation. When the characteristics of parties, the nature of exchange and the surrounding market and environmental conditions are favorable, firms can more effectively integrate their resources and capabilities to generate mutual benefits. Such mutual benefits, as Kumar and Pansari (2016) emphasize, can increase motivation and performance among both employees and consumers. Moreover, maintaining a positive reputation within the network helps minimize risks in decision-making and strategy implementation while enhancing

organizational resilience (Hur et al., 2014; La Rocca et al., 2019). In this way, businesses become interconnected nodes, with collaboration serving as a catalyst for innovation, conflict management and growth (Håkansson et al., 2009; Håkansson and Snehota, 2024).

The degree of adaptation is crucial for sustaining partnerships, as higher trust and relational capital support strengthens cooperation and the allocation of relational-specific resources (Bock et al., 2012; Harrison and Van Hoek, 2018). External market factors such as competition regulatory environments and technological changes further compel firms to re-evaluate their strategies, structures and decision-making processes (Håkansson and Östberg, 1975). In volatile environments, firms must cultivate capabilities to adapt proactively to stay resilient amid fluctuating conditions (Harrison and Van Hoek, 2018). Digital transformation introduces additional situational variables, shaping how value is collectively generated and perceived in industrial contexts (Vargo and Lusch, 2016). Overall, the interaction model not only guides strategic and organizational decisions but also enriches academic discussions on industrial marketing, highlighting how reciprocal and adaptive relationships provide competitive advantage (Håkansson and Snehota, 2024).

### 2.4 Conceptual framework

The conceptual framework, Figure 1, was developed to better understand how network relations strategically build resilience with one another based on their situational variables. These strategic decisions are affected by various degrees of embeddedness within the network, ranging from highly interactive to less interactive.

In the creation of a network relationship, each partner evaluates the demand of their situational variables and extent of contribution to the collective competitive advantage (Håkansson and Snehota, 2024; Håkansson and Östberg, 1975; La Rocca et al., 2019). From an Industrial Marketing and Purchasing (IMP) perspective, firms are not independent actors but are embedded in interdependent networks where resources and activities must be coordinated across relationships (Håkansson and Snehota, 2024). The network actors' interplay in the relationship is crucial to partners' decision to continue the relationship with a higher or lower degree of interaction (Håkansson and Snehota, 2024). This is determined based on the level of complexity the project or relationship entails and will ultimately impact the degree of network resilience the partners in the relationship experience (Sadrabadi et al., 2024). Without identifying the intentions of the partners, in the case of a challenge, the partners will have difficulty aligning their strategies for transformation (Runfola et al., 2023).

As a result of less interaction, the firm will be more likely to become less resilient as the network will have a substantially smaller degree of understanding for the decisions made. Gadde and Håkansson (2023) stress the benefits of interacting openly with network actors, to then later be able to serve as support systems in difficult situations. This is directly in line with the oversocialized view of embeddedness (Håkansson and Östberg, 1975). On the contrary, it can be assumed that with more interaction in smaller collaborations, it will complicate even the simplest tasks. If the network partners choose to interact more,

they will experience a greater degree of adaptation requirement to enhance value-cocreation (Granovetter, 1985; Håkansson and Östberg, 1975).

With a more complex relationship that requires greater interaction, the network partners will learn each other's needs and wishes to have a mutually beneficial partnership. From an embedded perspective, repeated interaction creates opportunities for actors to develop relational knowledge and shared expectations, which reduces uncertainty and facilitates coordinated adaptation (Granovetter, 1985; Uzzi, 1997). Hence, through a more oversocialized embedded relationship with trust and adaptability, the partners will build greater resilience. This is because trust functions as a governance mechanism in interorganizational networks, enabling partners to share critical information, commit resources and respond more flexibly when disruptions occur (Håkansson and Snehota, 2024; Christopher and Peck, 2004). They will then be more prone to tackling potential challenges and difficulties in a more effective way, enhancing each other's competitive advantage.

In line with the IMP view, resilience emerges through relational processes, where actors jointly mobilize resources and adjust activities in response to situational pressure rather than acting in isolation (Gadde and Håkansson, 2023; Håkansson and Snehota, 2024). Each network relationship is then regularly reevaluated to ensure that the network relations maintain their shared goals and values. The process then progresses onward with a continuation of their relationship or exchanged for a new actor with the purpose of enhancing network resilience.

On the contrary, if the situational variables determine that the network relationship is less complex, based on organizational size, regulations and outward factors, the partners may decide that less interaction is required (Uzzi, 1997). They then form a more undersocialized embedded relationship. While there are advantages to this approach, with less interaction, there will be less trust and adaptability built among the actors. Hence, this will lead to lower resilience if challenges arise. The network partners will not, to the same extent, understand each other's needs and how they strategically tackle difficulties (Lopez et al., 2024; Runfola et al., 2023; Sadrabadi et al., 2024). This imbalance and lack of mutual understanding will reflect itself in their network resilience, potentially brewing further challenges (Gadde and Håkansson, 2023).

At this point, the relationship partners must re-evaluate their relationship and decide upon an extension of their relationship or look for a new partner. Such reconfiguration reflects the adaptive nature of the network, where resilience is maintained through ongoing adjustments in partner reflection, interaction intensity and shared strategic intentions.

### 3. Methodology

This study uses a qualitative, case-based research design to examine how resilience is enacted through embedded B2B relationships in Sweden's recycling industry. A qualitative approach is appropriate because it enables in-depth insight into processes and meaning making in an exploratory setting (Easterby-Smith et al., 2018; Stebbins, 2001). The study follows abductive logic, iterating between literature, emerging

empirical insights and theoretical comparisons as analysis progressed (Bryman and Bell, 2017; Timmermans and Tavory, 2012). A case study design was selected to capture detailed narratives of strategic decision-making during disruption and to examine relationship-level mechanisms through which resilience is developed in a focal firm's B2B network (Yin, 2009). The empirical setting is accessed through one large Swedish recycling firm, but the analytical focus is on embedded units within the case namely key B2B network relationships through which resilience is mobilized and maintained. In line with ethical guidelines, the case company and participants were anonymized; the firm is referred to as "Company X" throughout (Korstjens and Moser, 2018; Saunders et al., 2014). Company X was selected using purposive sampling because it operates in a highly interdependent circular-economy context and occupies a coordinating role across multiple B2B ties, making it well-suited for surfacing mechanisms of resilience through embedded relationships to enforce a resilient B2B network (Nyimbili and Nyimbili, 2024).

Primary data collection was conducted through eight semi-structured interviews (McIntosh and Morse, 2015) with employees in managerial and customer-facing roles and the participants were selected via a purposive sampling method to ensure relevant expertise in the B2B context (Bryman and Bell, 2017; Etikan et al., 2016). The interviewees had between one to eight years of experience; their roles varied from department managers, sales and administration managers as well as sales associates (Creswell, 2014). To protect the confidentiality of the participants, all respondents were ensured anonymity as they are referred to as DM 1–4, SM 1, SA1–2, AM 1 throughout the study (Korstjens and Moser, 2018). Among the four department managers interviewed, two focused on non-hazardous waste, one on hazardous waste and the fourth department manager oversees both hazardous and non-hazardous waste in their district. The interviews were conducted online through Microsoft Teams, lasting 45–60 min each, to accommodate geographical diversity (Lobe et al., 2020). Questions were open-ended, developed based on the theoretical frameworks and designed to encourage elaboration on topics such as trust, adaptability, resilience and relationship building (Bryman, 2016; Easterby-Smith et al., 2018). Prior to this, a pilot interview was conducted to refine the questions, enhancing quality and reliability (Saunders et al., 2019). In Table 1. *Respondent Information* presents the interview participants with their gender, position and experience and why they are relevant to this study.

The data was then analyzed with a thematic approach to identify patterns and themes related to the research question (Timmermans and Tavory, 2012; De Paoli, 2024; Naem et al., 2023). As part of the thematic approach, the five steps that have been followed are as follows:

- 1 familiarization with the collected data from interview transcription;
- 2 creating initial codes for the data patterns;
- 3 selecting themes by grouping related coded data;
- 4 reviewing those themes; and
- 5 defining and naming each theme (Timmermans and Tavory, 2012; Easterby-Smith et al., 2018; De Paoli, 2024).

Table 1 Respondent information

Role in the organization	Code	Relevance
Department manager	DM1	Oversees and drives forward projects that align with the company's main objectives and goals and manages personnel (focused on non-hazardous waste)
Department manager	DM2	Oversees and drives forward projects that align with the company's main objectives and goals (focused on hazardous waste)
Department manager	DM3	Oversees and drives forward projects that align with the company's main objectives and goals and manages personnel (focused on non-hazardous waste)
Department manager	DM4	Oversees and drives forward projects that align with the company's main objectives and goals and manages personnel (focused on hazardous and non-hazardous waste)
Sales manager	SM1	Oversees and manages the sales, communication and administration team, ensuring the alignment with company goals and objectives
Sales associate	SA1	Manages sales and communication between new and old network relations
Sales associate	SA2	Manages sales and communication between new and old network relations
Administration manager	AM1	Manages customer service personnel and ensures smooth operations within their network relations

This method facilitated an in-depth exploration of themes such as relationship dynamics, regulations, trust and the degree of adaptation in B2B interactions (Easterby-Smith *et al.*, 2018; Naeem *et al.*, 2023). Table 2 below specifies the process of coding and thematizing the interview responses.

Ethical considerations included obtaining informed consent from respondents before commencing the interviews and allowing respondents to withdraw or decline questions at any time. These measures encourage openness and voluntary participation, enhancing the study's credibility (Bryman and Bell, 2017; Shah *et al.*, 2024).

## 4. Findings

In this following section, the findings are presented using four main subheadings. The data is categorized to gain greater comprehension for the similar and contrasting views of the interviewees at Company X regarding the different stages of the network relationship lifecycle to ensure B2B network resilience.

### 4.1 Finding suitable network partners

A common denominator among the interviewees was their emphasis on how important it is for network partners to align with the same, or similar, values as Company X. The interviewees were asked whether their perceptions of their network relationships affect who they choose to partner with and what strategic actions they take. It was then stressed that

prior to choosing partners and firms to collaborate with, they identify whether the companies' values match, in addition to whether the partners' brand reputation is positive. As DM2 mentions:

It is a question of whether you should have a collaboration with an actor at all because of the risks, for example. Because it is something that can damage the company as a brand, so we are extremely selective.

Despite Company X's effort to identify firms with similar values and efforts to collectively improve sustainability initiatives, the majority of interviewees suggested that the organization is still open and willing to push other firms into a more sustainable and environmentally conscious mindset and direction. While this remains true, numerous respondents also highlighted that they must consider the impact that the network partners will have on the researched firm. More importantly, Company X urges their partners to obey laws and regulations, as well as societal demands, being another factor in whether they choose to partner or not. DM2, working with hazardous waste, emphasized that the organization is becoming evidently more selective with whom they choose to partner with.

It was further emphasized by SM1 that companies with a similar industry magnitude are more inclined to reach out to the examined corporation to collaborate due to the firm's influential reputation among industry actors. Another important aspect they seek when selecting suitable network partners includes profitability and achieving positive sustainable results together. While Company X is a more expensive option among competitors, SM1 stressed that the incentive among partners to choose them often lies in shared values rather than financial questions as portrayed:

For some customers, it is a pure financial incentive, but for most, it is the issue of sustainability that actually comes up and becomes more important.

To be able to ensure meeting regulatory objectives and strategically mitigate challenges, Company X implements climate protocols and agreements prior to engaging in a relationship. These ensure that if there is a breach of contract or objectives that are not met, the partner can get fined. Although all interviewees emphasized a high level of adaptation in their network relations, they also highlighted that it is to a certain degree. Depending on the complexity of the relationship and project, DM2 emphasized that they will adapt accordingly while mentioning:

We have started to look more and more at phasing out various agreements and such in order to be able to step out of a breach of contract when it comes to environmental issues or work environment issues and so on. So, it is something that we notice is becoming more important for serious actors to keep track of the situation as well.

While Company X works with larger firms, who often come with greater social influence and responsibilities, they do invest in relationships with smaller firms as well. It ultimately comes down to the question of whether there is a genuine interest from the other partner to build mutual value. SM1 highlighted that some firms want them to merely solve their problems, while others want to grow and evolve together by saying:

If we have limited investment possibilities, and we are faced with choosing between a customer who has a sustainability profile and that they want to develop together with us, and a customer who only wants us to solve a

Table 2 Findings and their corresponding themes

Findings	Codes	Themes	
<p>It is a question of whether you should have a collaboration with an actor at all because of the risks, for example. Because it is something that can damage the company as a brand, so we are extremely selective</p> <p>For some customers, it is a pure financial incentive, but for most, it is the issue of sustainability that actually comes up and becomes more important</p> <p>We have started to look more and more at phasing out various agreements and such to be able to step out of a breach of contract when it comes to environmental issues or work environment issues and so on. So, it is something that we notice is becoming more important for serious actors to keep track of the situation as well</p> <p>If we have limited investment possibilities, and we are faced with choosing between a customer who has a sustainability profile and that they want to develop together with us, and a customer who only wants us to solve a problem and not be involved. Then we will take on the customer who has the willingness to cooperate and has a sustainability profile</p> <p>We are keeping our brand in high regard, and in this industry, we have both serious and unserious competitors. Therefore, we are most willing to cooperate with customers who have a high standard of environmental cooperation</p> <p>Today it's a bit like this that you usually don't get plus points if we say you're sustainable, but you get very large minus points if you're not sustainable</p> <p>I must always have a certain profit requirement for the business I run for the money you have to chip in to develop the techniques. This means that I am never the cheapest option. It's not going to happen either</p> <p>We all work differently, but I think it is good to come out and physically talk to them. Then we can go out together and see how everything looks, and sometimes we even are able to spot processes that need improvement and I get the time to educate the customer on the potential reuse of certain materials. At the same time, it is important to adapt to the customer's needs and wishes</p> <p>Smaller work tasks tend to demand meetings less often, however, it depends on how complex their assignments are as there still are small businesses that have these complex operations</p> <p>In the best-case scenario, we want the customer to call us if there has been a deviation with their waste which is being transported to us. Because first of all, the customer will get a fine for it, and secondly, if the customer contacts us, we know what we will be met with when their waste has been transported to us, so we can efficiently handle it</p> <p>We are careful with our brand reputation. In our industry, there are many actors that lie on a scale of 'seriousness' – everything from a high sustainability vision and standard down to this scandal</p> <p>One customer is not the same as another. They have different conditions, they have different space, places for their waste. It's kind of different there too. Then you have to find a solution for it</p> <p>We have smaller suppliers who check in and ask if we have any material that we want them to take care of, or if we would like assistance during the summer as they have less workload during that period</p>	Damaging brand reputation	<i>Relations</i> Håkansson and Östberg (1975) Granovetter (1985) Hur et al. (2014) Lassila et al. (2023)	
	Importance of sustainability is often prioritized by partners rather than cost		
	Challenges of breaches of contract		
	Prioritizing sustainability over profitability		
	Importance of environmental consciousness		<i>Interplay</i> Håkansson and Östberg (1975) Granovetter (1985)
	Shared values through relationship building		Rajagopal and Rajagopal (2009) Yaqub (2013)
	Quality over quantity		
	Physical meetings build stronger relationships		<i>Adaptation</i> Håkansson and Östberg (1975) Vargo and Lusch (2016) Håkansson and Snehota (2024)
	Meeting intensity differs according to project complexity		
	Open communication regarding challenges		<i>Resilience</i> Lopez et al. (2024) Sadrabadi et al. (2024) Kumar and Pansari (2016)
Different values among different industry actors			
Different conditions for different network partners			
Trust-building among varied sized network partners			

problem and not be involved. Then we will take on the customer who has the willingness to cooperate and has a sustainability profile.

The interviewees expressed on multiple occasions that Company X is becoming increasingly careful with whom they choose to partner with, to sustain a positive brand image for all network partners and enforce effective B2B network resilience. Multiple variables play a role in making these decisions.

#### 4.2 Interplay of partners and situational variables

Several interviewees emphasized that profitability and regulatory adherence are the main factors shaping how Company X interacts with its business partners. According to SM1, some customers consider strict compliance with environmental regulations as a competitive edge rather than a burden as specifying:

We are keeping our brand in high regard, and in this industry, we have both serious and unserious competitors. Therefore, we are most willing to cooperate with customers who have a high standard of environmental cooperation.

On the contrary, DM2 noted a subset of customers which exclusively focused on cost efficiency. The interviewees experienced this behavior to be connected to the demand for less complex solutions where the services from Company X could be exchanged for a cheaper partner. This tension between compliance and pure profitability shapes which collaborative efforts they in return must pursue.

Other managers shared similar yet nuanced perspectives on industry pressure and unifying processes. SM1 pointed out that many suppliers and customers are highly conscious of their brand's reputation by saying:

Today it's a bit like this that you usually don't get plus points if we say you're sustainable, but you get very large minus points if you're not sustainable.

Despite Company X's prime focus on sustainability and environmental consciousness, the respondents of the interviews emphasized that Company X is still a commercial entity. In order for Company X to engage effectively in network partnerships, profitability becomes an equally important factor to consider. The employees also highlight the immense costs the supply chain adds up to. This includes transportation costs, amenities and technological developments. As a result, several department managers stressed that they are often not the cheapest option among competitors. However, DM2 expressed that they value sustainability to such a high degree that the cost is worth it for partners in the long run by mentioning:

I must always have a certain profit requirement for the business I run for the money you have to chip in to develop the techniques. This means that I am never the cheapest option. It's not going to happen either.

Harmonizing processes also emerged as a critical issue in the interviews. AM1 and SA1 also noted how they streamline logistics and digital tracking tools for their customers, all of which tailor the experience each customer receives to fit their specific needs. Aligning with the general consensus that these diverging priorities, some partners prioritizing regulatory compliance and environmental responsibility results in different levels of collaboration. Regardless, all participants agreed that industry pressure and evolving legal requirements are shaping the sector, forcing both Company X and its B2B partners to continuously evaluate the balance between cost, legal obligations and broader benefits of effective, sustainable waste management practices to enforce effective B2B network resilience.

### 4.3 Degree of adaptation and interactivity

Interviewees consistently highlighted how communication shifts depend on the complexity of the service needed as well as its association with the size of the organization. Larger corporations may require more structured and frequent engagement that spans multiple managerial levels. SA1 elaborated on the matter with how they collaborate with the customer by saying:

We all work differently, but I think it is good to come out and physically talk to them. Then we can go out together and see how everything looks, and sometimes we even are able to spot processes that need improvement, and I get the time to educate the customer on the potential reuse of certain materials. At the same time, it is important to adapt to the customer's needs and wishes.

In contrast, SA2 emphasizes that smaller companies seem to have shorter decision-making layers and often rely on quicker and more informal communication. The general consensus from the interviews suggests that it is not the size of the organization that dictates how intensively Company X communicates with its partners, but rather the complexity of the services being provided. However, according to SA2, larger companies typically experience greater legal scrutiny – making them more susceptible to inspections and fines – which fuels the perception that there is a divide between big and small organizations.

According to DM1, both large and small organizations can fall into either low- or high-interaction. Here, high interactions stem from the harmonization of processes between their firm and B2B partners. At the same time, DM1 emphasized that less complex partners usually involve lower volumes, standardized recycling, fewer modifications and focus routine checks and documentations as DM1 mentions:

Smaller work tasks tend to demand meetings less often; however, it depends on how complex their assignments are as there still are small businesses that have these complex operations.

All interviewees agreed that striking the right communication balance fosters trust, especially when dealing with complex scenarios. However, overly inflexible processes can delay decisions. As a result, Company X adapts its approach – offering a higher-touch, formal model for large partners and complex needs and a more streamlined, flexible style for smaller firms or simpler operations that foster network resilience.

### 4.4 Network resilience

A recurring discussion among the interviewees was Company X's ability to maintain open communication with their network partners in all phases of the relationship. To understand what their partners needed and clearly communicate, the firm's own goals were stressed as valuable aspects in their network relationships. In doing this, the interviewees emphasized that approaching the relationship in this way from the beginning enables a greater ability to tackle future challenges if they arise. SA1 gave an example suggesting that considering these vital relationship characteristics from the beginning, like open communication, protects all network partners from potential complications. As SA1 specifies:

In the best-case scenario, we want the customer to call us if there has been a deviation with their waste which is being transported to us. Because first of all, the customer will get a fine for it, and secondly, if the customer contacts us, we know what we will be met with when their waste has been transported to us, so we can efficiently handle it.

Multiple interviewees stressed that the level of importance for involving greater communication between network partners has increased immensely in the last decade. This was emphasized as being the result of an environmental crime scandal in the Swedish recycling industry in 2016 where it was discovered that a recycling firm was not following environmental laws, instead handling the waste unlawfully, including hazardous waste. DM4 highlighted that although the Swedish recycling industry has moved forward following this scandal, the misconduct led the industry toward tougher regulations. This includes firms complying with ISO certifications, recording where the waste is transported and

increasing their transparency. Similarly, DM2 stressed that the scandal set new standards for the industry, increasing the demand to report their actions regularly in compliance with the Swedish Environmental Protection Agency. In relation to this, SM1 emphasized that:

We are careful with our brand reputation. In our industry, there are many actors that lie on a scale of 'seriousness' - everything from a high sustainability vision and standard down to this scandal.

A prevailing sentiment among interviewees is that large projects require more frequent communication, to completely understand the requirements to be met. This is augmented by the interviewees that increased complexity and scope of such initiatives require enhanced coordination to ensure that they align with the company's values and goals. Conversely, smaller companies or projects with limited scope were observed to demand less intensive communication and relationship-building efforts. The interviewees linked this trend to the comparatively straightforward nature of such undertakings, which often involve fewer partners and streamlined decision-making processes. As SA2 suggests:

One customer is not the same as another. They have different conditions, they have different space, places for their waste. It's kind of different there too. Then you have to find a solution for it.

One interviewee also highlighted the trust-based personal contact maintained between Company X and its partners. While larger companies are often assumed to be more closely monitored and influenced by industry regulations, this respondent noted that even smaller partners can keep an intertwined dialogue and close contact. As DM1 explained:

We have smaller suppliers who check in and ask if we have any material that we want them to take care of, or if we would like assistance during the summer as they have less workload during that period.

It was implied that although smaller firms may generally require less interaction, the projects they collaborate with Company X on may still be rather complex, in consideration to, for example, laws and regulations, difficulty level and the size of supply chain. No business partners are alike; all have varying goals and requirements. Hence, there is an amplified risk for implications, even with smaller firms. For this reason, all interviewees stressed the importance of open communication to mitigate potential risks, regardless of the firm's size. The factor that played a greater role in whether more interaction was required or not for a resilient B2B network was project complexity, determined by the effect of all situational variables.

## 5. Discussion

In the early stages of a B2B network relationship, there are multiple factors that play a role in the foundation of that network relationship. All interviewees emphasized that resilience is a variable that is already considered from the very beginning and a factor that they strive for throughout the entire B2B network relationship. DM2, however, stressed that if Company X can identify signs that the network partner will not adhere to regulations or non-negotiable values of Company X, it is not worth engaging further in the relationship. It becomes a question of whether the risk is worth the damage it could potentially bring to their brand reputation and network efficiency. As Hur et al. (2014) emphasize, potential risks in decision-making and strategy implementation are minimized

when the reputation among network partners is positive. For this to be possible, B2B network partners must align in their values and be willing to adapt for mutual value gain. Without this, the entire network chain is impacted negatively (La Rocca et al., 2019). Several of the sales managers at Company X stressed that for most industry actors, financial incentives are not the deciding factor in entering into a new B2B network relationship. It comes down to greater values, such as enhancing sustainability incentives. It is then vital to consider the situational variables to further determine whether a B2B network relation is in alignment with the firm's values and goals (Dubbink et al., 2008; Šehić and Peštek, 2020).

Furthermore, the interviews argue that profitability, regulations, industry pressure and process streamlining critically shape resilience within B2B networks. These insights highlight how the interaction model is affected by the way external conditions and firm capabilities shape network relationship strategies, as framed by the concept of embeddedness and network resilience (Bondeli and Havenvid, 2022; Granovetter, 1985; Håkansson et al., 2009).

Profitability consistently emerges as a key factor for the intensity of collaboration and B2B network relationships. In simpler, transactional settings, cost-efficiency often prevailed and mirrored undersocialized embeddedness, while larger, long-term alliances demonstrated that profitability can be enhanced through trust-based engagement, similar to Tobiassen and Pettersen's (2023) description. According to SM1, regulatory pressure likewise seems to drive the depth of the interaction as environmental and safety rules can foster collaborations. Although complex obligations may discourage partnerships which add to La Rocca et al.'s (2019) discussion. Meanwhile, according to Hur et al. (2014), such pressure might lead companies to meet evolving standards and may be a driving force to continuous collaborations with the researched company. The participants also noted how some companies exit the collaborations and B2B networks if the reputational stakes outweigh potential benefits.

The ability to streamline processes also proved critical. Digital tools and standardized models can, for Company X, help tailor services and create value co-creation as Vargo and Lusch (2016) mention. However, smaller partners may find advanced solutions unnecessary or expensive according to Lopez et al. (2024), which seems to be mirrored by the respondents' experiences if the processes are seemingly simpler. Overall, the focal firm balances social ties with market drivers-profitability, regulatory compliance and competitive benchmarks. Ultimately, shifting profitability needs, regulatory demands, market expectations and process innovations all seem to shape how firms anchor themselves in networks and maintain resilience in fluid B2B settings.

The oversocialized perspective of embeddedness becomes more evident in the discussion of B2B network resilience. While conducting the interviews, all respondents emphasized that all relations need a degree of interaction. As suggested by DM1, it is often assumed that smaller firms or work tasks demand less interaction as there is less industry pressure, or it is simply less complex. While that can be true to some network relations with lower complexity, each relation requires some degree of interaction to understand and meet each actor's needs and goals with the shared practice. Uniquely, DM1

described how some smaller suppliers actively reach out during their own low seasons to ask whether Company X needs help handling material. This initiative contrasts with the common assumption that smaller partners are passive or peripheral. Instead, these suppliers use their slower periods to stay useful and present, showing loyalty and a willingness to share operational burdens. Such proactive outreach illustrates network resilience in practice with B2B networks adjusting capacity and timing together when market demand fluctuates. Granovetter (1985) and Uzzi (1997) argue that embedded ties build this kind of adaptive strength, while Bondeli and Havenvid (2022) note that resilience grows when partners do not leave the network but rather look for ways to remain relevant under pressure.

Regarding the aforementioned issue, it is crucial to consider the benefit of social interactions on network relations rather than solely focusing on the transactional impact (Dublink et al., 2008; Gadde and Håkansson, 2023). This is particularly necessary for B2B network partners within the recycling industry, who must follow regulations as well as have immense industry pressure (Bondeli and Havenvid, 2022; Swedish Institute, 2024). As a result of the environmental crime scandal in 2016, DM4, DM2 and SM1 unknowingly discussing the same situation, all stressed the importance of documentation and communication between the B2B network partners to avoid potential misunderstandings or imbalance in value co-creation. Through being transparent with the actions a firm takes, network partners can feel more secure in the relationship and be more resilient should the network face a challenge. The smaller supplier example adds a distinct layer here, showcasing that network resilience is not only about compliance or risk control but also about timing and mutual support. When suppliers volunteer to provide spare capacity and help Company X smooth operations during seasonal dips, they create a flexible safety net that formal contracts alone cannot provide. Vargo and Lusch (2016) describe this as value co-creation, while Kumar and Pansari (2016) link such engagement to stronger, more enduring partnerships. This loyalty-driven flexibility can keep firms anchored within the same network instead of switching partners when uncertainty arises.

Lassila et al. (2023) stress that negative brand reputation can result in difficulties for B2B network partners to collaborate effectively when facing unforeseen challenges. Hence, open communication, building trust and nurturing personal relationships challenge B2B network partners to look beyond their own needs and develop a shared value co-creation (Bilro et al., 2023; Uzzi, 1997). This oversocialized mindset ultimately fosters greater collaboration and adaptation among B2B network partners when hinders in the strategic business plan arise. As La Rocca et al. (2019) and Vargo and Lusch (2016) emphasize, all network partners are impacted by each decision that is made within that B2B network.

One of the sales managers argued that Company X is not there to solely take on other firms' problems and solve them. Company X wants a nurturing collaboration where their B2B network members are willing to cooperate and build an even stronger sustainability profile. Hence, this requires an oversocialized perspective. B2B network members must consider the greater impact of their strategic actions and their

effect on their B2B partners. Although there are numerous situational variables that are factors to whether a firm will engage in a new B2B network relationship, to an extent, Company X emphasizes the importance of keeping their brand in high regard. This may result in declining new partnerships, but today, firms must be more strategic when engaging in B2B network relations, to effectively tackle network resilience (Bondeli and Havenvid, 2022).

While the oversocialized perspective must be considered when building resilience with B2B network actors, the interviews largely reinforced the undersocialized perspective of embeddedness (Granovetter, 1986; Uzzi, 1997), wherein some firms prioritize profit over sustained social ties, reducing network resilience during market shocks. Many interviewees noted that cost-centric partners often require minimal communication, short contracts and minimal ongoing engagement – approaches evident in less complex projects aimed at “simply solving a problem,” recalling Håkansson and Östberg's (1975) observations in their classical article.

From a theoretical standpoint, these low-complexity, profit-driven interactions align with the undersocialized view, which sees extensive social exchanges as unnecessary if they inflate overhead or slow decision-making (Dana and Fong, 2011). While Powell (1990) highlights the benefits of collaborative networks, certain conditions prompt firms to operate at ‘arm's length’ relationships centered on efficiency rather than trust. As multiple respondents noted that this limited interaction undermines preparedness for abrupt legal or operational changes, echoing Sinha and Ola (2021), who link sparse social ties with diminished B2B network resilience (Bondeli and Havenvid, 2022).

However, not all collaborations fit the undersocialized mold. Some smaller businesses, according to DM1, have seemingly straightforward collaborations that still demand considerable co-operation. Due to strict environmental standards or adaptation to unique on-site needs, this indicates that external factors like regulations or consumer demands may override pure cost considerations. The earlier example of offering support during low-demand periods further illustrates how even partnerships often perceived as transactional can show loyalty and adaptive capacity. This behavior is reflected by Bilro et al. (2023), who argue that customer-supplier engagement creates shared value beyond financial incentives. Similarly, Uzzi's (1997) view suggests that embedded ties strengthen a B2B network's ability to adapt under uncertain conditions. Thus, while undersocialized relationships frequently surface in smaller-scale, profit-driven engagements, the data also suggests that real-world business relationships are rarely one-dimensional.

Overall, the findings suggest that Company X intentionally balances over- and undersocialized embeddedness, shaping its alliances with each partner's regulatory, sustainability and profitability needs within the B2B network. In line with Håkansson and Östberg (1975) and Uzzi (1997), undersocialized relationships appear to function adequately for simple, cost-focused collaborations but risk reduced resilience during turbulence. Conversely, oversocialized relationships emphasize trust and sustainability, amplifying adaptability but possibly limiting purely profit-based gains. While both views of embeddedness hold valuable input on how to move forward

and gain competitive advantage, the latter perspective allows B2B networks to more effectively withstand challenges. By continually evaluating these trade-offs, Company X demonstrates how situational factors, especially regular compliance and shared values, determine its level of social integration within the B2B network.

Through establishing an understanding of the variables that play a vital role in building greater network resilience within B2B relations, Figure 2 titled 'The Interplay of Situational Variables and Network Resilience' was developed as an adaptation of Figure 1. While Figure 1 presents a more general conceptual framework, Figure 2 refines and specifies it by integrating the situational variables identified in this study. The Figure 2 illustrates the process from the creation of a B2B network relationship to the final stage where firms re-evaluate and determine the future of their relationship status within the B2B network, drawing on an over- and undersocialized perspective of embeddedness. It serves as a foundation for identifying which adapted situational variables are most influential in determining whether the final stage will lead to a long-term resilient B2B network relation or a short-term, less resilient B2B network relationship. This ultimately shows how a firm strategically acts toward network resilience within their B2B relations.

As emphasized by La Rocca *et al.* (2019), and Vargo and Lusch (2016), the entire B2B network chain is impacted by the actions of their network partners. Through examining prior literature and the interview findings, it was found that this exact statement is a vital reason for firms being exceedingly particular with whom they choose to join forces with. It is increasingly apparent that firms aim to build network resilience from the outset of a B2B relationship, but it is realized only when partners' situational variables align (Bilro *et al.*, 2023).

Prior to engaging in a new B2B network relation, Company X evaluates four core situational variables, including *profitability*, *regulations*, *industry pressure* and *streamline process 'ability'* (Håkansson and Östberg, 1975). Based on these variables, Company X can determine the complexity of this new B2B relationship, which directly impacts the intensity of communication between the network actors. More complex operations involving stringent regulations or sensitive materials require *increased demand for interactions*, which may lead to an oversocialized B2B relationship. Inversely, simpler operations driven primarily by profitability motives might lead to undersocialized B2B relationships with *limited interaction*.

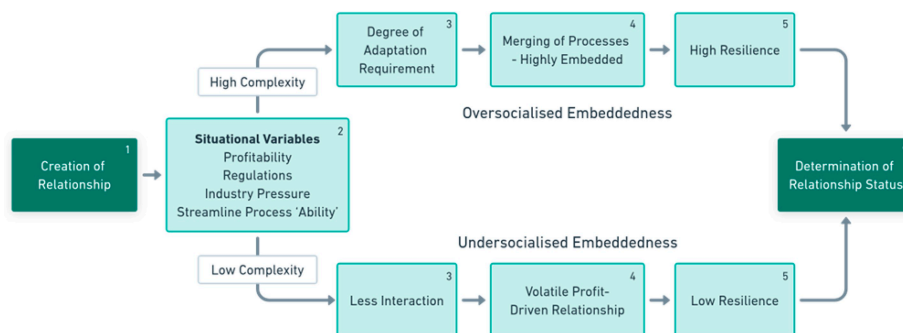
After determining whether the new B2B relationship has a high or low level of complexity, Figure 2 exhibits two directions that the B2B network relationship can proceed in: the above path implicating oversocialized embeddedness or the path below suggesting undersocialized embeddedness. The oversocialized path occurs when there is a requirement for a high degree of adaptation and merging processes because of complex regulatory environments or high industry pressure (Granovetter, 1985). The firms are then obligated to become deeply integrated, with strong social ties and mutual dependencies to then overcome potential challenges (Gadde and Håkansson, 2023; Lopez *et al.*, 2024; Runfola *et al.*, 2023; Sadrabadi *et al.*, 2024). Hence, a high level of B2B network resilience is developed. On the contrary, the path indicating an undersocialized embedded relationship emerges in less regulatory environments where the focus is more so on profitability than social ties. The interactions are thus less frequent, more transactional and focus on short-term goals rather than long-term integration. As a result, these B2B network relations are less resilient to future challenges or industry changes (Runfola *et al.*, 2023).

In the final stage of Figure 2, what determines whether the B2B relationship will continue to evolve and develop *high resilience* or if it will remain a short-term B2B relationship lies in three vital components; *trust*, *satisfaction* and continued evidence of *profitability* (Rajagopal and Rajagopal, 2009; Bilro *et al.*, 2023). When a firm experiences mutual value gain, they are more likely to be willing to contribute with their own industry capabilities and expertise (Kumar and Pansari, 2016). This perspective is correlated directly to the oversocialized view of embeddedness where shared norms and values have a colossal impact on the social interactions within B2B networks (Granovetter, 1985; Runfola *et al.*, 2023). The B2B network relations with this perspective are more likely to engage in a long-term relationship than those with less interaction. Despite this, Company X, on a yearly basis, still reevaluates the mutual value co-creation as well as that the situational variables are still aligned with their goals.

## 6. Conclusion

In conclusion, this study finds that B2B network interactions have different goals and needs. These play out along a spectrum from undersocialized to oversocialized interactions. Even so, a

**Figure 2** Interplay of situational variables and network resilience



Source: Authors' own work

broader consensus emerges; B2B network resilience grows when actors use strengthened trust and communication. By using these situational variables and remaining adaptive to network changes, firms are able to navigate challenges more effectively. The study emphasizes that network resilience is strengthened through the stability and adaptability of interorganizational ties and less so of internal preparedness. This emphasizes the necessity of fostering strong relationships with trust and communication to tackle B2B network resilience.

This study advances a contingency view of embeddedness in B2B networks: embeddedness is not a static tie property, but an adjustable governance mechanism calibrated to situational conditions. By integrating the interaction model with embeddedness, this study posits when firms lean toward oversocialized (trust-intensive) or undersocialized (efficiency-oriented) approaches as a function of profitability pressures, regulatory stringency, industry conditions and process-efficiency needs. This integration clarifies how relational and contractual mechanisms are jointly configured to produce B2B network resilience. Sector-specific evidence from Sweden's recycling context illustrates the mechanisms while keeping the contribution general to B2B network theory.

In practice, firms can adopt a dual strategy that integrates selective partner engagement based on shared values and open communication - with formal mechanisms such as clearly defined contracts and structured risk-mitigation procedures. Strategic actions (renegotiating agreements, enforcing compliance protocols, periodic in-person meetings) help sustain network resilience. From managers' perspective, this implies a contingency rule that focuses on increasing relational investment in complex or regulated collaborations and streamlining interaction for standardized cost-driven projects. By calibrating interaction intensity to context, firms' resiliency secures the trust necessary for long-term B2B Network collaboration. For firms in the recycling sector, resilience is not achieved through vertical integration or contractual safeguards alone. It is cultivated through embedded interorganizational ties that enable trust, adaptability and coordinated action. Managers who intentionally develop, balance and orchestrate these ties can transform their B2B networks from fragile supply chains into resilient collaborative ecosystems.

While specifying at the managerial implications of this study, it should be mentioned that the study provides important insights for managers operating in the recycling sector and other industrial B2B networks characterized by high interdependence, regulatory pressure and supply uncertainty. The findings suggest that embedded interorganizational ties are not merely relational assets, but strategic mechanisms for strengthening B2B network resilience. Managers should view long-term, trust-based relationships as resilience infrastructure rather than as soft, informal arrangements. While strong embedded ties enhance trust and coordination, over-embeddedness may increase vulnerability if the B2B network becomes too closed. Managers should therefore combine deep relationships with selected strong partners and maintain access to alternative actors to ensure resilience. Moreover, embedded relationships enable richer information exchange, which is critical in the recycling sector where material flows, quality standards and regulatory requirements frequently change.

Managers should actively leverage trusted relationships to share sensitive or forward-looking information, that would not typically be exchanged in purely transactional ties, to create a resilient B2B network.

The study is bounded by a single country and sector (Sweden's recycling industry) and a qualitative, cross-sectional design based on self-reports. Future research could compare multiple cases across sectors or countries, use longitudinal designs to observe reconfiguration across disruption phases and test boundary conditions (e.g. dependence asymmetry, governance mode, digital integration) to assess when oversocialized vs undersocialized approaches are most effective.

## References

- Abrahamsen, M.H. and Håkansson, H. (2016), "Market policy and destructive network effects", *IMP Journal*, Vol. 10 No. 2, pp. 195-220, doi: [10.1108/IMP-09-2015-0052](https://doi.org/10.1108/IMP-09-2015-0052).
- Alajoutsijärvi, K., Mainela, T., Ulkuniemi, P. and Montell, E. (2012), "Dynamic effects of business cycles on business relationships", *Management Decision*, Vol. 50 No. 2, pp. 291-304, doi: [10.1108/00251741211203579](https://doi.org/10.1108/00251741211203579).
- Baraldi, E., Ciabuschi, F., Fratocchi, L., Pedroletti, D. and Picciotti, A. (2024), "The roles of key suppliers in network formation when reshoring", *Journal of Business & Industrial Marketing*, Vol. 40 No. 4, pp. 841-857, doi: [10.1108/JBIM-02-2023-0101](https://doi.org/10.1108/JBIM-02-2023-0101).
- Bilro, R.G., Loureiro, S.M.C. and Souto, P. (2023), "A systematic review of customer behavior in business-to-business markets and agenda for future research", *Journal of Business & Industrial Marketing*, Vol. 38 No. 13, pp. 122-142, doi: [10.1108/JBIM-07-2022-0313](https://doi.org/10.1108/JBIM-07-2022-0313).
- Bock, A.J., Opsahl, T., George, G. and Gann, D.M. (2012), "The effects of culture and structure on strategic flexibility during business model innovation", *Journal of Management Studies*, Vol. 49 No. 2, pp. 279-305, doi: [10.1111/j.1467-6486.2011.01030.x](https://doi.org/10.1111/j.1467-6486.2011.01030.x).
- Bondeli, J.V. and Havenvid, M.I. (2022), "Bouncing back in turbulent business environments: exploring resilience in business networks", *Industrial Marketing Management*, Vol. 107, pp. 383-395, doi: [10.1016/j.indmarman.2022.10.022](https://doi.org/10.1016/j.indmarman.2022.10.022).
- Bryman, A. (2016), *Social Research Methods*, 4th ed., Oxford University Press, New York, NY.
- Bryman, A. and Bell, E. (2017), *Företagsekonomiska Forskningsmetoder*, 3rd ed., Liber, Stockholm.
- Creswell, J.W. (2014), *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*, 4th ed., Sage Publications, New York, NY.
- Cristofaro, M., Abatecola, G. and Kask, J. (2024), "Business network paradoxes: a literature review and co-evaluation perspective", *Industrial Marketing Management*, Vol. 120, pp. 115-131, doi: [10.1016/j.indmarman.2024.05.011](https://doi.org/10.1016/j.indmarman.2024.05.011).
- Christopher, H. and Peck, M. (2004), "Building the resilient supply chain", *The International Journal of Logistics Management*, Vol. 15 No. 2, pp. 1-14, doi: [10.1108/09574090410700275](https://doi.org/10.1108/09574090410700275).
- Dana, J.D. and Fong, Y.-F. (2011), "Product quality, reputation, and market structure", *International Economic Review*, Vol. 52 No. 4, pp. 1059-1076, available at: [www.jstor.org/stable/41349187](http://www.jstor.org/stable/41349187)

- De Paoli, S. (2024), "Performing an inductive thematic analysis of semi-structured interviews with a large language model: an exploration and provocation on the limits of the approach", *Social Science Computer Review*, Vol. 42 No. 4, pp. 997-1019.
- Dubbink, W., Graafland, J. and van Liedekerke, L. (2008), "CSR, transparency and the role of intermediate organisations", *Journal of Business Ethics*, Vol. 82 No. 2, pp. 391-406, available at: [www.jstor.org/stable/25482298](http://www.jstor.org/stable/25482298)
- Easterby-Smith, M., Thorpe, R., Jackson, P.R. and Jaspersen, L.J. (2018), *Management and Business Research*, 6th ed., Sage Publications, London.
- Etikan, I., Musa, S.A. and Alkassim, R.S. (2016), "Comparison of convenience sampling and purposive sampling", *American Journal of Theoretical and Applied Statistics*, Vol. 5 No. 1, pp. 1-4.
- Gadde, L.E. and Håkansson, H. (2023), "Network dynamics and action space", *Journal of Business & Industrial Marketing*, Vol. 38 No. 13, pp. 166-179.
- Granovetter, M. (1985), "Economic action and social structure: the problem of embeddedness", *American Journal of Sociology*, Vol. 91 No. 3, pp. 481-510, available at: <http://www.jstor.org/stable/2780199>
- Grewal, R. and Sridhar, S. (2021), "Commentary: toward formalizing social influence structures in business-to-business customer journeys", *Journal of Marketing*, Vol. 85 No. 1, pp. 98-102, available at: [www.jstor.org/stable/26973173](http://www.jstor.org/stable/26973173)
- Gulati, R., Wohlgezogen, F. and Zhelyazkov, P. (2012), "The two facets of collaboration: cooperation and coordination in strategic alliances", *Academy of Management Annals*, Vol. 6 No. 1, pp. 531-583, doi: [10.5465/19416520.2012.691646](https://doi.org/10.5465/19416520.2012.691646).
- Harrison, A. and Van Hoek, R. (2018), *Logistics Management and Strategy*, 6th ed., Pearson Education Ltd.
- Heikka, E.L. and Nätti, S. (2018), "Evolving value propositions in knowledge-intensive business services", *Journal of Business & Industrial Marketing*, Vol. 33 No. 8, pp. 1153-1164, doi: [10.1108/JBIM-12-2017-0306](https://doi.org/10.1108/JBIM-12-2017-0306).
- Hur, W.-M., Kim, H. and Woo, J. (2014), "How CSR leads to corporate brand equity: mediating mechanisms of corporate brand credibility and reputation", *Journal of Business Ethics*, Vol. 125 No. 1, pp. 75-86, available at: [www.jstor.org/stable/24033155](http://www.jstor.org/stable/24033155)
- Håkansson, H., Ford, D., Gadde, L.-E., Snehota, I. and Waluszewski, A. (2009), *Business in Networks*, Wiley Ltd, ISBN: 9780470749630.
- Håkansson, H. and Snehota, I. (2024), "Economic effects of interaction. The neglected economy of connectivity", *Journal of Business and Industrial Marketing*, Vol. 39 No. 2, pp. 117-123, doi: [10.1108/JBIM-05-2023-0282](https://doi.org/10.1108/JBIM-05-2023-0282).
- Håkansson, H. and Östberg, C. (1975), "Industrial marketing: an organizational problem?", *Industrial Marketing Management*, Vol. 4 Nos 2-3, pp. 113-123, doi: [10.1016/0019-8501\(75\)90035-8](https://doi.org/10.1016/0019-8501(75)90035-8).
- Ivanov, D. (2022), "Viable supply chain model: integrating agility, resilience and sustainability perspectives—lessons from and thinking beyond the COVID-19 pandemic", *Annals of Operations Research*, Vol. 319 No. 1, pp. 1411-1431.
- Korstjens, I. and Moser, A. (2018), "Series: practical guidance to qualitative research. Part 4: trustworthiness and publishing", *European Journal of General Practice*, Vol. 24 No. 1, pp. 120-124.
- Kumar, V. and Pansari, A. (2016), "Competitive advantage through engagement", *Journal of Marketing Research*, Vol. 53 No. 4, pp. 497-514, available at: [www.jstor.org/stable/44134928](http://www.jstor.org/stable/44134928)
- La Rocca, A., Perna, A., Sabatini, A. and Baraldi, E. (2019), "The emergence of the customer relationship portfolio of a new venture: a networking process", *Journal of Business & Industrial Marketing*, Vol. 34 No. 5, pp. 1066-1078, doi: [10.1108/JBIM-10-2018-0300](https://doi.org/10.1108/JBIM-10-2018-0300).
- Larson, A. (1992), "Network dyads in entrepreneurial settings: a study of the governance of exchange relationships", *Administrative Science Quarterly*, Vol. 37 No. 1, pp. 76-104, doi: [10.2307/2393534](https://doi.org/10.2307/2393534).
- Lassila, E., Heikka, E.-L. and Nätti, S. (2023), "Supporting value co-creation through interaction during the pre-purchase customer journey: empirical evidence from B2B HR services", *Journal of Business & Industrial Marketing*, Vol. 38 No. 13, pp. 63-73, doi: [10.1108/JBIM-12-2021-0552](https://doi.org/10.1108/JBIM-12-2021-0552).
- Linnenluecke, M.K. (2017), "Resilience in business and management research: a review of influential publications and a research agenda", *International Journal of Management Reviews*, Vol. 19 No. 1, pp. 4-30, doi: [10.1111/ijmr.12076](https://doi.org/10.1111/ijmr.12076).
- Lobe, B., Morgan, D. and Hoffman, K.A. (2020), "Qualitative data collection in an era of social distancing", *International Journal of Qualitative Methods*, Vol. 19, pp. 1-8.
- Lopez, E., Flecha-Ortiz, J.A., Santor-Corrada, M. and Dones, V. (2024), "The role of organizational resilience in SME service innovation and value cocreation", *Journal of Services Marketing*, Vol. 38 No. 4, pp. 443-459, doi: [10.1108/JSM-03-2023-0081](https://doi.org/10.1108/JSM-03-2023-0081).
- McIntosh, M.J. and Morse, J.M. (2015), "Situating and constructing diversity in semi-structured interviews", *Global Qualitative Nursing Research*, Vol. 2, p. 2333393615597674.
- Naeem, M., Ozuem, W., Howell, K. and Ranfagni, S. (2023), "A step-by-step process of thematic analysis to develop a conceptual model in qualitative research", *International Journal of Qualitative Methods*, Vol. 22, p. 16094069231205789.
- Nyimbili, F. and Nyimbili, L. (2024), "Types of purposive sampling techniques with their examples and application in qualitative research studies".
- Pettit, T.J., Fiksel, J. and Croxton, K. L. (2010), "Ensuring supply chain resilience: development of a conceptual framework", *Journal of Business Logistics*, Vol. 31 No. 1, pp. 1-21.
- Powell, W. (1990), "Neither market nor hierarchy: network forms of organization", *Research in Organizational Behavior*, Vol. 12, pp. 295-336, available at: [https://web.stanford.edu/~woodyp/powell\\_neither.pdf](https://web.stanford.edu/~woodyp/powell_neither.pdf)
- Rajagopal, and Rajagopal, A. (2009), "Buyer-Supplier relationship and operational dynamics", *Journal of the Operational Research Society*, Vol. 60 No. 3, pp. 313-320, available at: [www.jstor.org/stable/40206740](http://www.jstor.org/stable/40206740)
- Runfola, A., Milanese, M. and Guercini, S. (2023), "Relationship resilience and exogenous events: the role of relational dynamics", *Industrial Marketing Management*, Vol. 109, pp. 146-153.

- Sadrabadi, M.H.D., Makui, A., Ghousi, R. and Jabbarzadeh, A. (2024), "The role of organization model for planning supply chains' resilience and business continuity under interrelated disputations: a case study", *Kybernetes*, Vol. 53 No. 12, pp. 5801-6842, doi: [10.1108/K-04-2023-0547](https://doi.org/10.1108/K-04-2023-0547).
- Salmenperä, H. (2021), "Different pathways to a recycling society: comparison of the transitions in Austria, Sweden and Finland", *Journal of Cleaner Production*, Vol. 292, p. 125986, doi: [10.1016/j.jclepro.2021.125986](https://doi.org/10.1016/j.jclepro.2021.125986).
- Saunders, B., Kitzinger, J. and Kitzinger, C. (2014), "Anonymising interview data: challenges and compromise in practice", *Qualitative Research*, Vol. 15 No. 5, pp. 616-632, doi: [10.1177/1468794114550439](https://doi.org/10.1177/1468794114550439).
- Saunders, N.M., Lewis, P. and Thornhill, A. (2019), *Research Methods for Business Students*, 8th ed., Pearson Education.
- Scholten, K. and Schilder, S. (2015), "The role of collaboration in supply chain resilience", *Supply Chain Management: An International Journal*, Vol. 20 No. 4, pp. 471-484.
- Šehić, L. and Peštek, A. (2020), "The effects of digital media buying on advertisers", *Management*, Vol. 25 No. 1, pp. 279-291, doi: [10.30924/mjcmi.25.1.15](https://doi.org/10.30924/mjcmi.25.1.15).
- Shah, S.K., Ibrahim, A., Hinga, A., Vintimilla, D., Jones, M., Rid, A., Eckstein, L. and Kamuya, D. (2024), "Ethical issues faced by data monitoring committees: results from an exploratory qualitative study", *Ethics & Human Research*, Vol. 46 No. 6, pp. 2-13.
- Sinha, R. and Ola, A. (2021), "Enhancing business community disaster resilience. A structured literature review of the role of dynamic capabilities", *Continuity & Resilience Review*, Vol. 3 No. 2, pp. 132-148, doi: [10.1108/crr-03-2021-0009](https://doi.org/10.1108/crr-03-2021-0009).
- Stebbins, R.A. (2001), *Exploratory Research in the Social Sciences*, Sage Publications Ltd.
- Still, J., Komulainen, H. and Nätti, S. (2018), "Contextual layers of service experience in professional business services", *Journal of Business & Industrial Marketing*, Vol. 33 No. 8, pp. 1114-1124, doi: [10.1108/JBIM-10-2017-0255](https://doi.org/10.1108/JBIM-10-2017-0255).
- Swedish Institute (2024), "Sweden is aiming for zero waste. This means a commitment to change our everyday lives", Swedish Institute, available at: <https://sweden.se/climate/sustainability/swedish-recycling-and-beyond>
- Timmermans, S. and Tavory, I. (2012), "Theory construction in qualitative research: from grounded theory to abductive analysis", *Sociological Theory*, Vol. 30 No. 3, pp. 167-186, doi: [10.1177/0735275112457914](https://doi.org/10.1177/0735275112457914).
- Tobiassen, A.E. and Pettersen, I.B. (2023), "Understanding networking dynamics in born global firms' internationalization: balancing the mix of physical and virtual networking in B2B markets", *Journal of Business & Industrial Marketing*, Vol. 38 No. 3, pp. 494-506, doi: [10.1108/JBIM-12-2020-0534](https://doi.org/10.1108/JBIM-12-2020-0534).
- Törmälä, M. and Saraniemi, S. (2018), "The roles of business partners in corporate brand image co-creation", *Journal of Product & Brand Management*, Vol. 27 No. 1, pp. 29-40, doi: [10.1108/JBIM-01-2016-1089](https://doi.org/10.1108/JBIM-01-2016-1089).
- Uzzi, B. (1997), "Social structure and competition in interfirm networks: the paradox of embeddedness", *Administrative Science Quarterly*, Vol. 42 No. 1, pp. 35-67, doi: [10.2307/2393808](https://doi.org/10.2307/2393808).
- Vargo, S. and Lusch, R. (2016), "Institutions and axioms: an extension and update on service-dominant logic", *Journal of the Academy of Marketing Science*, Vol. 44 No. 1, pp. 5-23, doi: [10.1007/s11747-015-0456-3](https://doi.org/10.1007/s11747-015-0456-3).
- Yaqub, M.Z. (2013), "Value enhancement through value-creating relational investments in inter-firm relationships: the moderating role of leverage potential and relational polygamy", *Managerial and Decision Economics*, Vol. 34 Nos 3-5, pp. 328-346, available at: [www.jstor.org/stable/23464310](http://www.jstor.org/stable/23464310)
- Yin, R.K. (2009), *Case Study Research: Design and Methods*, 3rd ed. Sage, Thousand Oaks, CA.

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