

Location, Location, Innovation?

A Qualitative Study on How Domestic Manufacturing Locations Influence
Firms' Innovation Capability

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Bachelor Thesis

Stockholm School of Economics

2026



Abstract

As more managers ponder relocating previously offshore production back home – known as ‘reshoring’ – scholars and practitioners are increasingly attentive to the strategic implications of having domestic manufacturing. In an otherwise globalized world, one such implication concerns firms' innovation capability. Using Teece's (1997; 2007) dynamic capabilities framework of sensing, seizing, and transforming, we examine how domestic manufacturing locations shape firms' innovation capability. Based on 13 semi-structured interviews with managers across four firms, we find that domestic manufacturing has a limited effect on sensing: firms identify market trends largely independently of where they produce. An exception arises for process innovations where geographical proximity may increase the likelihood that operational improvements will be identified. For seizing and transforming, domestic locations matter, but not as prior literature suggests. Rather than geographical proximity being decisive, we conceptualize *relational proximity* as the social, organizational, institutional, and cognitive closeness between headquarters and the manufacturing unit, drawing on Boschma (2005). In doing so, this study contributes to supply chain management literature by identifying the fine-grained mechanisms – such as boundary-spanning roles and cultural practices – through which firms can actively build this proximity, regardless of manufacturing location.

Keywords: Manufacturing location, Innovation, Dynamic Capabilities, Reshoring, Relational Proximity

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Bachelor Thesis

Bachelor Program in Management

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Acknowledgements

A genuine thank you to our respondents for your time, positive encouragement, and admirable mentality of giving back, despite busy schedules.

To Anna Söderblom, our supervisor. Thank you for fantastically detailed (and honest) feedback, every single time. Together with the supervision group, you were surely key in bringing this ship safely to shore.

Lastly, we thank our friends and family who kept us afloat when the waters got rough by offering a second pair of eyes and going out of your way to support.

Thank you, all, for riding the waves!

*Max Steiner Lundgren and Isolde Björnfot
Stockholm, May 11th 2026*

Definitions

Manufacturing	Manufacturing is the conversion of raw materials into finished products using tools, human labor, machinery, and chemical processing (Investopedia, n.d.).
Innovation Capability	Firms' systematic ability of producing value-creating output by integrating knowledge, skills, and transforming operations accordingly (Moreira et al., 2024).
Proximity	The geographical, cognitive, organizational, social, and institutional dimensions that facilitate innovation by solving coordination problems between actors (Boschma, 2005).
Relational Proximity	The social, institutional, organizational, and cognitive closeness between headquarters and the manufacturing unit (Own concept; based on Boschma, 2005).
Offshoring	The relocation of value chain activities to foreign locations, typically to lower costs (Schmeisser, 2013).
Reshoring	The relocation of previously offshore production back domestically (Fratocchi et al., 2016).
Innovation	The process of creating, improving, or implementing new ideas, methods, or products to solve problems or enhance efficiency (UNESCO, n.d.).

1. Introduction

1.1. Background

“To manufacture close to home, or not...”

That is not the question famously soliloquized in Shakespeare's *Hamlet* (1603). Yet for the modern firm manager, it is one they likely have pondered more than once. Where to locate manufacturing operations is among the most consequential decisions a goods-producing firm must make (Ketokivi et al., 2017). To the untrained eye, it may appear a straightforward matter of optimizing supply chain costs, efficiency, or risk (Pedroletti & Ciabuschi, 2023). Yet literature suggests manufacturing location also carries implications for a firm's *innovation capability* (e.g., Tavassoli & Karlsson, 2021).

Innovation capability refers to firms' ability to produce value-creating output by integrating knowledge and transforming operations accordingly, including selecting an appropriate manufacturing location (Moreira et al., 2024). Historically, such decisions were often unambiguous, as production was domestic by default (Pedroletti & Ciabuschi, 2023). However, this shifted after the 1960s, with firms offshoring manufacturing en masse to lower-cost regions (Pedroletti & Ciabuschi, 2023). This gave rise to so-called ‘global network managers,’ meaning firms operating globally dispersed value-chains without a given domestic market (Theyel & Hofmann, 2021).

As of the 2020s, the offshoring trend has partially reversed. Recent geopolitical tensions and global disruptions, like the Covid-19 pandemic and Russia's invasion of Ukraine, have exposed vulnerabilities in geographically fragmented supply chains (OECD, 2025). Consequently, firms are considering relocating, in whole or part, of their previously offshore manufacturing operations domestically; a process known as *reshoring* (Fratocchi et al., 2016). According to the EY European Attractiveness Survey, 46% of responding firms reported considering reshoring in 2023, up from 20% in 2021.

Part of driving this trend is the expectation that it will preserve critical home-market competencies, thereby supporting firms' innovation capability (Pisano & Shih, 2009). However, research linking domestic manufacturing location to innovation outcomes remains mixed. Some argue that co-locating manufacturing with other organizational functions supports innovation, as tacit knowledge is more easily shared (e.g., Theyel & Hofmann, 2021). Others caution against equating reshoring with “going back to basics,” as moving away from specialized network-hubs risks losing access to decades of accumulated expertise (Dachs et al., 2014). Firms thus face a paradox: today, domestic manufacturers must compete with globally networked actors who leverage advanced capabilities for innovation. Pisano & Shih (2009) describe this as a key organizational trade-off. It is therefore relevant to further examine how domestic manufacturing locations influence firms' innovation capabilities.

1.2. Aim and Research Question

Accordingly, this study draws on Teece et al. (1997) and Teece's (2007) *dynamic capabilities* framework of sensing, seizing, and transforming – meaning how firms identify opportunities in their environment, pursue them by mobilizing resources, and reconfigure their operations accordingly. As prior literature has established a relationship between geographical closeness to a manufacturing location and firms' innovative capability, albeit with varying results and granularity, this study aims to provide a more fine-grained understanding of the mechanisms underlying this influence. Specifically, we aim to extend the supply chain literature's treatment of such proximity as primarily a geographical matter, highlighting the social, cognitive, and organizational dimensions that shape the sensing-seizing-transforming process.

The guiding research question is:

How do domestic manufacturing locations influence firms' ability to sense, seize, and transform assets for innovation opportunities?

1.3. Scope

This study draws on interviews with four Swedish goods-producing firms, all of which have domestic manufacturing yet to differing degrees: some have partially reshored, with offshore production remaining; others have remained at home throughout. Comparing insights from both remote- and domestic experiences helps highlight trade-offs between the two; nonetheless, the analytical lens is focused on what these imply for how a domestic manufacturing location – rather than the location choice itself – shapes innovation practices. Moreover, this study does not examine the geopolitical or strategic rationales behind the choice to manufacture domestically. This decision is treated as a contextual backdrop against which firms have determined based on their unique circumstances.

2. Literature review

The literature review adopts a funneling approach, examining three related sub-streams within the supply chain management (SCM) literature. First, we outline how manufacturing location decisions are discussed in broad terms, followed by a review of the performance outcomes associated with domestic production. We then consider what existing research suggests about the relationship between manufacturing location and innovation. Finally, we integrate SCM research with proximity literature to develop a multidimensional – beyond geographical – understanding of closeness to manufacturing.

2.1 Manufacturing and the Location Decision

Central to SCM research is the decision of firms on where to locate their manufacturing and whether to own it in-house or outsource it to an external supplier (Williamson, 1979; Christopher, 2005). As such, literature on manufacturing location decisions is tied to questions about overall firm strategy, reflecting considerations of cost, control, capability, and competitive positioning (Christopher, 2005).

A distinction is commonly made between *offshoring* and *domestic* manufacturing. Offshoring refers to the relocation of value chain activities to foreign locations, typically to lower costs or access specialized network hubs (Schmeisser, 2013). For several decades, offshoring has dominated SCM research; however, growing protectionist discourse calling for reduced dependence on global manufacturing hubs has prompted scholars (e.g., Fratocchi et al., 2016) to shift attention to more domestic modes (Pedroletti & Ciabuschi, 2023). Particularly interesting is the growing phenomenon of *reshoring*, meaning the full or partial relocation of previously offshore production back to the domestic market (Fratocchi et al., 2016).

2.2 Domestic Manufacturing Location and Performance Outcomes

A related sub-stream concerns the performance outcomes of domestic manufacturing. Research shows that geographical proximity of manufacturing to end markets can shorten lead times, improve flexibility, and enable faster response to changing customer needs (Johansson & Olhager, 2018). Domestically produced goods also tend to evoke stronger consumer identification through so-called "made-in" effects (Cappelli et al., 2017). As the performance effects of domestic production are well established, Pedroletti & Ciabuschi (2023) call for research beyond traditional indicators, such as examining how domestic manufacturing triggers organizational learning and innovation.

2.3 Domestic Manufacturing Location and Innovation

Researchers have begun answering this call, albeit with varying conclusions. Gray et al. (2015) find that geographically co-locating R&D and manufacturing facilitates the transfer of tacit knowledge. Dachs et al. (2014) instead find that domestic manufacturing may be detrimental to home-country innovation, as the alternative of offshoring is associated with higher rates of new product introductions and increased investment in advanced technologies.

Newer research by Theyel & Hofmann (2021) links domestic manufacturing locations with organizational agility, defined as a higher-order capability for value creation. Contrary to Dachs et al. (2014), they argue that offshoring manufacturing frequently creates "intermittent value creation processes" whereby spatially separating manufacturing from other functions, such as R&D, impairs innovation. Conversely, retaining manufacturing domestically often enhances long-term competitiveness in dynamic environments (Theyel & Hofmann, 2021). The authors classify firms into four archetypes: *arbitrage scouts*, who offshore for cost advantages at the expense of innovation; *home champions*, who retain domestic manufacturing convinced that it preserves innovation capacity; *reshorers*, who repatriate after finding that hidden offshoring costs like quality degradation outweigh labor savings; and *global network managers*, who offshore commodity components while keeping high-value manufacturing at home.

Common to all three studies is treating co-location of manufacturing as primarily a *geographical* dimension. Yet, Theyel & Hofmann (2021) note that establishing domestic manufacturing locations alone will not drive innovation, as supportive: 1) structures, and 2) leadership are needed in conjunction. Here, the inclusion of proximity literature may suggest similar, but more granular, findings as those of Theyel & Hofmann (2021).

2.4. A Multidimensional View of Proximity to Manufacturing Locations

Cortes (2023) calls for integrating SCM with established proximity frameworks, as these have not yet been discussed and constitute a research gap "warranting immediate attention" (p. 219). Proximity literature is an umbrella-term for works that typically span several disciplines and considers how different dimensions of organizations interact (Cortes, 2023). Here, seminal works like Boschma (2005) establish a link between geographical proximity and innovation. He argues that the importance of geographical proximity for innovation and learning cannot be analyzed in isolation but should be examined alongside other dimensions of proximity, namely *cognitive*, *organizational*, *social*, and *institutional*:

Table 1. Five Dimensions of Proximity, according to Boschma (2005).

<i>Type of Proximity</i>	Definition
<i>Geographical</i>	Spatial or physical distance between economic actors.
<i>Cognitive</i>	Extent to which actors share a common knowledge base.
<i>Organizational</i>	Extent to which relations are shared in an organizational arrangement, whether within a single firm or between different organizations in a network.
<i>Social</i>	Socially embedded relations between agents at the micro-level. Characterized by trust based on personal ties such as friendship and kinship.
<i>Institutional</i>	Shared “rules of the game” including informal institutions (cultural norms, habits, and values) that regulate how individuals interact.

According to Boschma (2005), geographical proximity facilitates face-to-face interaction between actors but is neither necessary nor sufficient for innovation on its own. He argues that learning only occurs when geographical proximity is supported by the other dimensions.

He further cautions that proximity is a balancing act, as either too much or too little across any of the five dimensions can have negative effects on innovation through *lock-in*; meaning impeding the generation of new ideas. For instance, for effective communication, actors must be cognitively close enough to understand one another, yet diverse enough to offer new ideas (Boschma, 2005).

2.5 Summary and Knowledge Gap

On one hand, research on domestic manufacturing and innovation has established that domestic manufacturing is consequential for firms' innovative capacity. Yet, the direction of such conclusions remains mixed, and the focus is mainly on this closeness between units as a geographical matter. On the other hand, Boschma (2005) shows that such proximity is multidimensional and that geography is neither the only nor necessarily the most important dimension for innovation.

However, these two bodies of literature have not yet been brought into dialogue with one another (Cortes, 2023). This generates two related gaps: *First*, the effects attributed to domestic manufacturing in the existing literature may reflect not only the geographical proximity of manufacturing per se, as SCM literature has investigated, but the social, cognitive, institutional, or organizational proximity that tends to co-vary with it, as per Boschma (2005). There thus appears to be a need for an account that takes the empirical setting of, e.g., Theyel and Hofmann (2021) and combines it with the nuanced treatment of proximity by Boschma (2005).

Second, we aim to provide a more fine-grained understanding of *the practices involved* in such co-variation. Related is Theyel and Hofmann's (2021) gesture toward the importance of supportive structures and leadership as key to the manufacturing-innovation link; yet the conceptualization of the specifics of these remains open.

Together, these gaps contribute to our overall research objective of understanding how domestic production locations relate to firms' ability to identify and pursue innovation opportunities. Addressing this requires a theoretical framework capable of capturing the fine-grained mechanisms underlying firms' innovation capabilities while allowing for integration with Boschma (2005)'s proximity dimensions.

3. Theoretical framework

3.1. The Dynamic Capabilities (DC) Framework

Drawing on Teece, Pisano & Shuen's original work (1997), Teece (2007) argues that, for a company to sustain a competitive advantage over time, it has to posit *dynamic capabilities* that are hard for competitors to imitate. Embedded processes specify how activities are coordinated, how learning and feedback occur, and how resources are reconfigured in response to new information stemming from the external or internal environment (Teece et al., 1997).

3.2. Sensing, Seizing, and Transforming Opportunities for Innovation

Based on the resource-based view (RBV), dynamic capabilities are used to develop, protect, and renew the company's asset base, and can be divided into a firm's ability to (1) *sense* opportunities and threats in the environment, (2) *seize* opportunities by mobilizing resources and making strategic decisions, and (3) *transform* a firm's tangible and intangible assets over time (Teece, 2007). The steps are iterative and cyclical, meaning that after reconfiguring, the firm must once again engage in sensing (Della Corte & Del Gaudio, 2012). Thus, one sensing-seizing-transforming process may lay the groundwork for how a firm senses, seizes, and transforms in subsequent iterations. Teece (2007) establishes four microfoundations per category; some of which are deemed relevant, as shown in Figure 1 at the end of the chapter.

3.2.1. Sensing

Sensing is the activity of scanning and interpreting market and technological opportunities arising from the internal and external environment. It complements formal research activities of R&D and is pursued by a firm's managers (Teece, 2007). Firstly, external information may arise from sources such as customer needs, suppliers, and complementors which can signal market trends (Teece, 2007). Furthermore, Teece (2007) highlights that R&D often is focused on so-called 'local search' – searching for opportunities within its existing knowledge base. Yet in dynamic environments where most idea-generation arises from external sources, 'distant' search further away from the enterprise itself is of equal importance. This is necessary for innovation, as Teece describes how successful firms develop routines that can become "strategic straitjackets," leading to managerial biases like "anti-cannibalization" and an inability to adopt radical, competence destroying innovations (Teece, 2007). Secondly, valuable information may arise internally within the firm. One example is Teece's reference to Hewlett-Packard's practice of "management by walking about" to prevent management from getting isolated from information flows.

Our study will investigate how a domestic manufacturing location influences a firm's ability to sense innovation opportunities from the concepts mentioned.

3.2.2. Seizing

When a new technological or market opportunity is sensed, it must be *seized* through action that brings value out of the opportunity (Teece, 2007). The individuals who seize opportunities are not necessarily those engaged in sensing, and a decision to pursue an innovative project passes through formal decision-making structures. These processes may become barriers to innovation, as internal stakeholders might feel threatened by a new solution and push back by becoming 'naysayers' (Teece, 2007). Thus, to build commitment and successfully allocate financial resources to a project, the 'promoters' – those in favor of an initiative – must win over the 'naysayers.'

Furthermore, Teece (2007) emphasizes the importance of designing the organization's *boundaries* to counter decision-making biases. This can imply choosing an in-house manufacturing configuration to enable control of the value chain, which may be important for the firm's innovative performance (Teece, 2007). For the analysis in Chapter 6, both the 'naysayers' and anti-bias structures of domestically manufacturing firms are relevant.

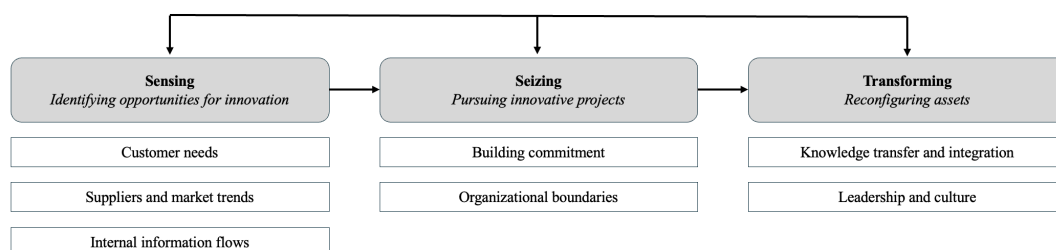
3.2.3. Transforming

Lastly, to sustain profitability and growth over time, a firm must *transform* its assets in response to a dynamic environment (Teece, 2007). One key dimension is the design of organizational structures. Teece (2007) argues that *decentralization* is beneficial for sustaining dynamic capabilities as individuals can act on opportunities rather than passing the information up the ladder, as would be the case in more hierarchical organizations. Related is the *skill of top management* to be innovative and continuously renew the organizational culture within a firm (Teece, 2007). Moreover, *knowledge sharing* within the firm and with external partners is of high importance in the context of dynamic capabilities (Teece, 2007). Thus, a firm shall design structures for knowledge transfer and integration to facilitate its functioning, depending on the context in which it operates.

3.3. Application, Critique, and Theory Modification

Our study applies the DC framework to examine how manufacturing location influences firms' ability to sense, seize, and transform innovation opportunities. We focus primarily on Teece (2007), where the three stages and their microfoundations, as shown in Figure 1, are formally introduced.

Figure 1. Teece's (2007) Dynamic Capabilities framework, adapted by Björnfot & Steiner Lundgren (2026).



The framework is well-suited for two reasons. First, its process-orientation on the microfoundations through which firms act on innovation opportunities is essential for this study as the research objective concerns *how* manufacturing locations influence innovation capability. The DC framework, especially the re-worked version of Teece (2007), enables a granular account that alternative frameworks, such as a purely RBV, would not readily support. Second, the framework fits the empirical context of firms navigating dynamic supply-chain environments. Teece (2007) developed the DC framework precisely for settings in which competitive advantage cannot be sustained through resource accumulation alone but requires continuous reconfiguration; directly relevant to e.g. reshoring decisions made in response to geopolitical disruptions.

However, it is not without limitations. A key critique concerns the risk of circularity in the sensing-seizing-transforming dimensions, as it can be difficult to clearly distinguish between the three stages in empirical settings (Eisenhardt & Martin, 2000). Also, Zahra et al., (2006) note that the DC framework was constructed with the individual firm, and particularly its top management, as the unit of analysis. Therefore, it is less well-equipped to capture the relational dimension of innovation: the interdependencies between a firm and the sub-units, suppliers, and production sites through which value is created. Proximity literature adds this dimension (Cortes, 2023). Where Teece (2007) asks what firms must do to sense, seize, and transform, Boschma (2005) asks between *whom* the necessary knowledge, trust, and coordination must exist for. Integrating Boschma's proximity dimensions thus addresses the DC framework's relative silence on the spatial and relational conditions that enable or constrain dynamic capabilities in manufacturing-intensive firms.

4. Method

4.1. Research Paradigm and Approach

This study employs an interpretivist research paradigm (Saunders et al., 2023). Interpretivists argue that the world cannot be simplified into objective generalizations; rather, individuals view the world through subjective lenses while simultaneously creating social meaning. This paradigm is well-suited for a qualitative study investigating how individuals within firms, through their own interpretations, perceive domestic manufacturing to influence firms' innovation capability.

Furthermore, an abductive research approach is used, moving iteratively between theory and empirics (Saunders et al., 2023). This allows for preliminary explanations to come from existing theory, while simultaneously being receptive to empirical insights that may evolve and provide a richer understanding of the research question. The abductive approach is a mixture of the deductive approach, where existing theory serves as a starting point and the inductive approach, where theory emerges from empirical observations (Saunders et al., 2023).

4.2. Research Design

4.2.1. Qualitative Research Design and Research Strategy

To reach a deep, context-sensitive understanding, this study adopts a qualitative research design (Saunders et al., 2023). Although the generalizability of the findings from such an approach may be questioned, Teece (2007) notes that the microfoundations underlying dynamic capabilities tend to be "incomplete, inchoate, and somewhat opaque" (p.1321) – implying that the nuances of the manufacturing-innovation link cannot, in the same way, be captured through quantitative methods. Moreover, as we seek to investigate this link beyond its geographical dimension, many of the relevant proximity dimensions discussed – such as micro-level social relations, cultural norms, and the tacit knowledge underlying shared cognitive bases – are often difficult to quantify (Nonaka, 1994).

Aware of this elusiveness, and that the ability to develop such microfoundations is "not uniformly distributed amongst individuals and enterprises" (Teece, 2007, p.1323), the research strategy chosen is a multiple case study, also incorporating participants at different hierarchical levels in each firm. As such, we examine how consistent patterns emerge in how these microfoundations practically develop. This was considered an advantage over, for example, a single-case study, as it reduces the risk of relying too heavily on firm's idiosyncratic characteristics that Teece (2007) caution against, while preserving the analytical depth demanded (Saunders et al., 2023).

4.3. Sampling Strategy

4.3.1. Sampling of Firms

Our sample contains four Swedish goods-producing firms with varying levels of domestic manufacturing, as shown in Table 2. These were selected through purposive sampling (Saunders et al., 2023), with firm-specific motivations illustrated in the information column of Table 1. However, the base requirement was that each firm would have a domestic manufacturing site within the same national context – in this case, Sweden – as the research objective demands that respondents can reason around what this implies for their innovation capability. Keeping firms within the same national context further reduces the likelihood that variation in the manufacturing-innovation relationship is attributed to country-specific institutional differences.

In Table 2, the sampled firms are classified according to Theyel & Hofmann's (2021) four-archetype framework, used to distinguish between differing levels of domestic manufacturing across the sample. Two reshoring firms were selected given their direct relevance to the current reshoring trend and possible ability to comparative domestic manufacturing relative to prior offshore experience. The Global Network Manager, instead, contributes a more internationally distributed perspective, operating in a context where dynamic capabilities are "especially relevant to multinational enterprise performance" (Teece, 2007, p.1319). The Home Champion, by contrast, has manufactured exclusively domestically throughout its history, with some attempts at remote contract manufacturing, and may therefore take certain domestic conditions for granted that the other firms do not – helping illuminate contrasts that would remain invisible within a single perspective (Saunders et al., 2023). The fourth archetype, arbitrage scouts, was deliberately excluded: firms in this category offshore for cost advantages at the explicit expense of innovation investment, meaning the phenomenon studied here is, by definition, not of strategic concern to them.

Table 2. Overview of Sampled Firms.

Coding	Industry	Size	Information
Reshorer 1	Retail	Medium	Main manufacturing site in Asia; partially reshored a few years ago by establishing an innovation-focused facility in Sweden, which has been continuously expanding since.
Global network manager (GNM)	Industrials	Large	Manufacturing sites in 50+ countries, of which two are in Sweden. Products are market-specific due to local regulatory standards, creating a need to maintain domestic sites for local responsiveness whilst centralizing development for scale.
Home champion	Food & Beverage	Medium	Manufacturing entirely based in Sweden across a few facilities. Domestic production is central to the firm's identity as a sustainable and responsible brand; however, recent investments signal interest in international expansion.
Reshorer 2	Technology	Small	Historically relied on a single Asian manufacturing site but established a complementary domestic facility a few years back.

4.3.2. Respondent Profile

Individual participants were selected through snowball sampling (Saunders et al., 2023), initiated through a first point of contact at each firm – established either via email correspondence or existing contacts – through whom further participants with relevant knowledge were identified. Cross-context experience was prioritized in the sampling, meaning experience from both domestic and remote manufacturing settings, as reasoning around both can help illuminate the trade-offs domestically producing firms face in an otherwise globalized world.

As per Table 3, all respondents also hold managerial positions at different hierarchical levels, ranging from the C-suite to operational management, and are involved in decisions across product, operations, strategy, and procurement areas. Teece (2007) highlights that the ability to sense or create opportunities requires both information access and capacity to shape subsequent developments. As such, the sensing-seizing-transforming-process “must be performed by the top management team.” (p.1323, 2007). Simultaneously, Teece notes that more desirable is to embed the capacity for innovation within the enterprise itself (Teece, 2007). For this thesis, given the absence of a human embodiment of the sampled firms, managers – with their helicopter view and role in strategic decision-making – serve as the best proxy for the firm itself. However, mindful of the critique that Teece et al. (1997) and Teece (2007) may overstate managerial agency in the innovation-process, we also include middle- and operational managers who may increasingly voice the perspectives of floor-level employees.

Referring to Lee (2000), Saunders et al. (2023) highlight the risk of participant selection bias in snowball sampling, where the initial contact may refer to colleagues with similar views. This was partially mitigated by the researchers familiarizing themselves with each firm and explicitly requesting interviews across different functions and hierarchical levels. Within each firm, the number of interviews was determined by firm size and the range of strategically relevant roles available – rather than by a fixed number – meaning that at smaller firms such as Reshorer 2, where fewer managers are involved in the relevant strategic decisions regarding where to locate manufacturing, two respondents were interviewed, while at larger firms up to four were included.

Table 3. Overview of Respondents.

Coding	Role in company	Managerial level*
Reshorer 1 (R1)	Commercial Executive	2
	Product Director	3
	Head of Offerings	4
	Product Line Manager	5
Global network manager (GNM)	Product Strategy Director	4
	Procurement Director	4
	Head of Development	5
	Head of Product	5
Home champion (HC)	Operations Executive	2
	Strategic Change Lead	3
	Head of Portfolio	3
Reshorer 2 (R2)	Supply Chain Executive	2
	Strategy Lead	3

** Level 1 corresponds to the CEO, with each subsequent level representing one step further from the CEO in the managerial hierarchy. As firm size and structure vary across the sample, levels have been adjusted so that respondents sharing the same level in the table hold broadly comparable responsibilities.*

4.4. Data Collection

4.4.1. Semi-structured Interviews

Semi-structured interviews were conducted with pre-determined interview questions serving as a structured foundation, while facilitating follow-up questions to capture meaning and detail and allowing new themes to emerge (Saunders et al., 2023). This method was selected as it allows for both prepared and adaptive questioning; essential for uncovering the often context-dependent and tacit nature of the manufacturing-innovation relationship. However, the flexibility of semi-structured interviews can introduce inconsistencies across interviews, as different follow-up questions may be pursued

depending on respondents' answers. This was mitigated through a well-structured interview guide maintained consistently across all interviews (*see Appendix 1*).

The interviews were conducted both online and in-person, ranging from 40 minutes to around 1.5 hours, with the longest sessions being the first point of contact at each company, who offered a broader overview beyond the interview questions.

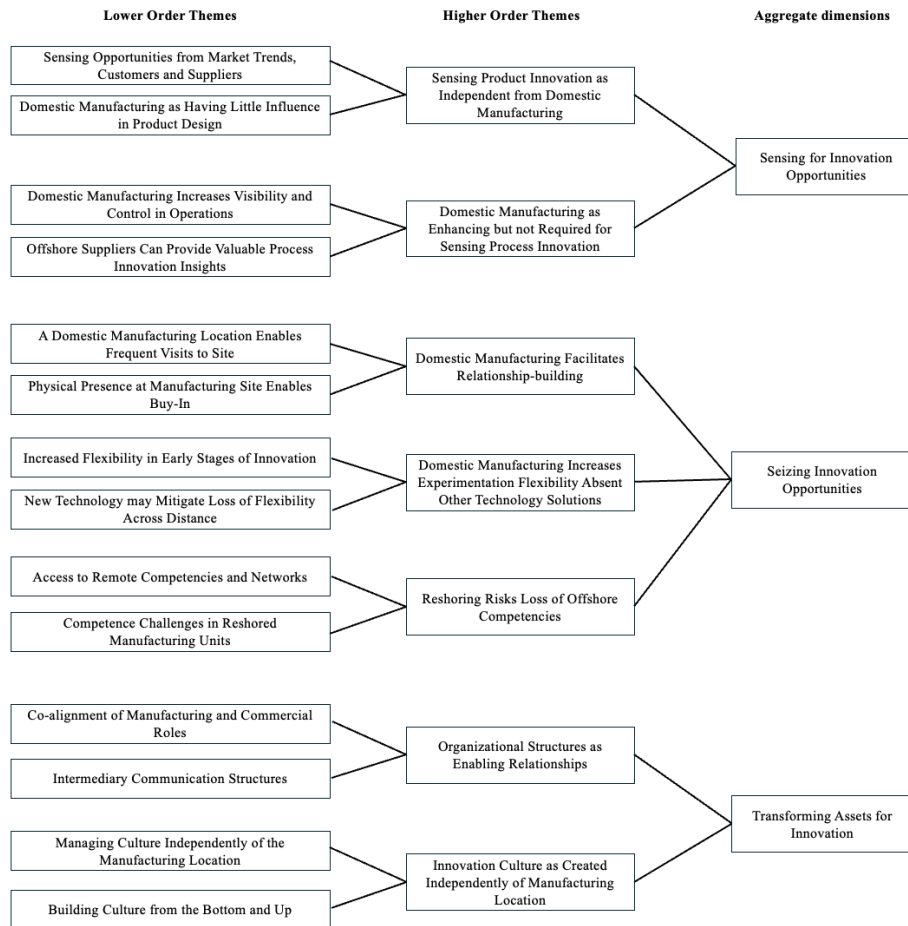
4.4.2. Design of Interview Questions

The guide covered three areas, structured around Teece's (2007) sensing-seizing-transforming framework: (1) market and external screening, exploring how respondents scan for and act on innovation-relevant information from outside the firm; (2) information flows between production and headquarters, examining how signals move internally and what role manufacturing plays in identifying improvements; and (3) the influence of manufacturing location on each of the above. A closing open-ended question was added to capture themes not raised by the structured questions. In practice, this surfaced reflections on incentive systems, the importance of leadership when establishing new domestic sites, and cultural differences between manufacturing personnel in Sweden and Asia. For the full interview guide, see *Appendix 1*.

For some of the questions, respondents were prompted to draw comparisons between domestic and remote manufacturing experiences – or, in the case of absence of such, hypothetical scenarios where this was the reality – to explore possible trade-offs in innovation capabilities that firms may face when choosing domestic manufacturing over alternative, remote configurations. This can be seen as a natural pathway reflecting the human tendency to evaluate oneself through social comparison (Festinger, 1954). However, there is a risk of interviewer bias, where framing of questions could lead interviewees into lines of reasoning (Saunders et al., 2023). This risk was partially mitigated by maintaining neutrality when phrasing questions, openly encouraging participants to speak their mind, and emphasizing that the research does not seek a specific answer but explores the topic openly.

4.5. Thematic Analysis

To identify and structure themes in the data, a thematic analysis was conducted (Saunders et al., 2023). Consistent with the abductive approach the interview guide was structured around Teece's (2007) sensing-seizing-transforming framework, and these serve as aggregate dimensions. Post interviews, the authors analyzed the transcripts independently to identify potential patterns and themes in the data. After, these were jointly discussed and lower order themes were drawn closely from the interview quotes. These were then grouped into several distinct categories of higher order themes that reveal insights on the relationship between domestic manufacturing locations and innovation.

Figure 2. Overview of empirical findings.

4.6. Method Discussion

4.6.1. Research quality

A general concern with semi-structured interviews is that they, per definition, are less standardized, raising the issue of dependability of the research outcome. However, the semi-structured nature is also a strength since it allows for follow-up questions and a deeper exploration needed to uncover the often “opaque” microfoundations, as previously highlighted (Saunders et al., 2023). Besides aforementioned interviewer bias, there is also response bias in cases where respondents may selectively reveal information, either due to organizational confidentiality or a desire to present themselves or the actor represented in a particular light (Saunders et al., 2023). For us as researchers, this puts expectations to not take what the respondents as given, but engage with the material to uncover tensions, deeper meanings, that respondents may express.

Moreover, transferability – meaning the degree to which findings may be extended to other contexts – is often limited by design in qualitative research, especially if isolated to actor or context (Saunders et al., 2023). As our study is confined to Swedish cases, this has partially been mitigated by recognizing where Teece's (2007) microfoundations are suggested to vary between national contexts, and – in those cases – treated as an analytically interesting finding rather than a limitation to be minimized.

4.6.2. Ethical considerations

The process followed the Stockholm School of Economics GDPR guidelines. All personal data, including recordings and transcripts, and corresponding notes will be permanently deleted upon the completion of the research. The interviews were either recorded with Microsoft Teams and stored within the institution's OneDrive or transcribed in detail during the meeting.

Since the topic touches upon strategically sensitive decisions, and given that reshoring is a trend of growing competitive interest, confidentiality was maintained through data pseudonymization of participating companies and individuals. Respondents provided informed consent prior to the interview. Pseudonymization was a deliberate methodological choice prior to the interviews, as we did not wish respondents to hold back information for the sake of maintaining a favorable façade; an otherwise typical limitation of semi-structured interviews (Saunders et al., 2023).

4.6.3. Use of Artificial Intelligence

Artificial Intelligence (AI) tools, such as ChatGPT and Claude, were used in a limited yet supportive capacity throughout the research process. Specifically, they were employed during brainstorming-phases, for language refinement, and complementarily in the early stages of literature screening (e.g. summarizing articles during the initial review). Although the authors welcome rule-based and academically responsible AI-use, generative AI-tools were not used for critical evaluation or to process any confidential material, such as interview responses.

5. Empirics

The empirics are organized around the three aggregate dimensions from Figure 2: 1) Sensing, 2) Seizing, and 3) Transforming. This structure follows Teece's (1997; 2007) dynamic capabilities framework and presents findings directly addressing the research question.

5.1. Sensing for Innovation Opportunities

5.1.1. Product Innovation as Independent of Domestic Manufacturing

When identifying opportunities for innovation, all interviewed managers report drawing on relatively similar sources, such as fairs, customer surveys, and meetings with suppliers. This pattern is consistent across the reshoppers, Home Champion, GNM, and the different managerial levels.

“Information comes from trade fairs and customer meetings. We actively conduct competitive analyses based on what our industry peers are doing.”

- Product Strategy Director, GNM

For Reshorer 1 and 2, their offshore sites are also described as important sources of market intelligence and innovation-related input. The Home Champion reports similar benefits through its relationships with suppliers, despite maintaining fully domestic manufacturing:

“Our factories in Asia produce all over the world, so we get a lot of feedback and inspiration from there.”

- Product Line Manager, Reshorer 1

“We work a lot with external suppliers around Europe, and they are fantastic at giving us input on what is trending and what they see that other producers are looking at.”

- Head of Portfolio, Home Champion

Across all sampled firms, the domestic manufacturing sites are said to have little influence on how new product ideas are generated:

“We try to get as much input possible as early as possible in the project. Then, [domestic] production really has nothing to do with that part; they only come in when we have a finished product and say: “*This is what we are going to produce*”.”

- Head of Portfolio, Home Champion

“It is not the factory itself that comes up with the ideas. They are fully occupied just producing what we want them to produce.”

- Product Director, Reshorer 1

5.1.2. Domestic Manufacturing and Process Innovation

However, both executive- and operational managers at Reshorer 1, 2, and the Home Champion note that domestic manufacturing sites play a role in identifying improvements in some areas; particularly in smaller-scale, *process-related* innovations. In these cases, geographical proximity to manufacturing can increase process-visibility:

“They [domestic manufacturing site] work on developing automation, recycling materials, and identifying new materials or ways of manufacturing. If you go to Asia, everything is done manually. [...] In contrast, they [in Sweden] are constantly working to find solutions in the production flow, and we see it as an innovative unit, because we must. Otherwise, we will never be able to bring production back fully.”

- Product Line Manager, Reshorer 1

“When we moved manufacturing here [to Sweden], there were also more people who saw the reality. People started asking questions like: “*Why are we doing this?*” and “*Why doesn't it look like this instead?*” So, it was a real ‘aha-experience’ for many, on several different levels. [...] Today, the R&D team, 98% of whom are based here in Sweden, can much more easily go out and observe the manufacturing process.”

- Supply Chain Executive, Reshorer 2

The GNM exemplifies a similar process-improvement with input from a remote supplier:

“Our colleagues in [manufacturing unit Asian country] came back and said: ‘*We’re following your specifications, but we could do it much more efficiently. Could we change the packaging size?*’ That way, we could fill an entire container for transport [lowering costs]. That suggestion came from them.”

- Head of Development, GNM

Lastly, the Home Champion exemplifies a frustrating situation related to process-innovation when attempting remote manufacturing a while back:

“We also tested contract-manufacturing of a product in Finland for a while and they said: you can't come here at all. It was very frustrating because we wanted them to change certain things in the way they produced. When you can't come there, it's very difficult to make suggestions.”

- Head of Portfolio, Home Champion

Together, sections 5.1.1 and 5.1.2 suggest that product-level sensing is largely location-independent, while domestic manufacturing offers some advantages for process-improvements; though these can be replicated through well-managed remote relationships.

5.2. Seizing Innovation Opportunities

Following the identification-process, respondents across the firms indicate geographical proximity to manufacturing as significant in *how* changes are executed. Two related mechanisms emerge.

5.2.1. Domestic Manufacturing Facilitates Relationship-building

Managers emphasize that, when driving an innovation requires buy-in from operational level personnel, establishing personal relationships and trust becomes crucial. Geographical proximity to manufacturing is said to facilitate this through more frequent, informal dialogue:

“You must establish a relationship first. The lower down in the organization you are to drive the change, you need to be physically present to work with the issues and receive acceptance for the change. I think it [being geographically close to a manufacturing site] is a way to establish that trust.”

- Strategic Change Lead, Home Champion

“It is of course easier to just go over and talk when you have manufacturing close – you can’t avoid that. I try to be in [Asian country] a couple of times a year, maybe two or three times, and once you are there, it’s no problem. The most important thing is really to build relationships with people. [...] Also in Sweden, the same challenge persists, but it’s generally easier because everyone speaks the same language. But it is not given!”

- Strategy Lead, Reshorer 2

5.2.2. Domestic Manufacturing and Experimentation Flexibility

The same goes for testing and experimentation, where all interviewed managers – to varying degrees – recall situation where having manufactured close by has made iteration faster than remote alternatives:

“Many times, we test something once. We tested this one twice just to be sure it was right. And then it’s a huge advantage to have it close by and just like, now we’re going there again, now we’re trying again. In this case, it was a success factor, I would say”

- Head of Portfolio, Home Champion

However, others highlight that iteration can work just as effectively across continents with the support of technological enablers:

“If there's an idea, it doesn't matter where it came from. We can just get the file 3D printed, get an idea of what it looks like or how it works.”

- Head of Product, GNM

Sections 5.2.1 and 5.2.2 suggest that seizing-related benefits mentioned are less about geographical closeness itself, and more the underlying mechanisms of trust and experimentation it tends to enable; though neither appears exclusive to domestic manufacturing.

5.2.3. Domestic Manufacturing Risks Loss of Offshore Competencies

While acknowledging the benefits of having a domestic production site, managers at both reshorners and the GNM describe situations in which certain products are simply not commercially viable or technically feasible to manufacture domestically. This is due to differences in networks and accumulated experience that exist “there” but not “here,” relating to required competence, technology, and materials:

“It may be that [Asian country] has a certain technology that is not available in, for example, Sweden. Then, it is more about access to technology. In some cases, it is simply not commercially viable to do something in Sweden, while in [Asian country] there are several alternatives to choose from.”

– Procurement Director, GNM

“We [in Sweden] are limited by the machines, processes, and experience we have here... In Asia it is completely different. There, they have all the experience, all the possibilities, and all the raw material suppliers in place... there are no limitations. [...] You sit down with them and have completely open discussions, and it's much faster from idea to market, because they are more experienced and have access to all the possibilities through subcontractors.”

- Product Line Manager, Reshorer 1

The Product Line Manager at Reshorer 1 further highlights the challenges as particularly acute in the first years following a reshoring-decision:

“It's been, and still is, a big challenge. It's so much about experience, where someone who's been doing this for 20 years [referring to Asia] has faced all these challenges before. Now we're working with [manufacturing] personnel who are completely ‘blank.’”

– Product Line Manager, Reshorer 1

This points to a potential trade-off: the feasibility of pursuing certain innovations domestically depends on locally available technologies and competences, which may be thinner domestically than in established offshore networks.

5.3. Transforming Assets for Innovation

Lastly, for making innovation stick, a consistent theme across firms is relational closeness to the manufacturing unit as not passively received but actively constructed. Also here, two mechanisms emerge.

5.3.1. Organizational Structures as Enabling Relationships

Firstly, several managers describe how formal structures, such as unified reporting lines when having a headquarter-manager as responsible for also the domestic manufacturing unit, reduce friction between headquarters and manufacturing by aligning incentives:

“For about one or two years now, we’ve had a structure where [Commercial office] is responsible for both parts [reshored manufacturing facility and headquarter-functions]. This has made things much easier, since we now report to the same person and therefore share common interests. Otherwise, situations can arise where someone has incentives to only increase production at [reshored manufacturing facility], at the expense of anything else. Now there is one person responsible for everything, who can steer this and try to prevent us from working against each other, and instead ensure that we are working in the same direction.”

- Head of Offerings, Reshorer 1

Firms with offshore production also describe investing in dedicated intermediaries – individuals who sit between headquarters and the remote site, enabling ongoing knowledge transfer and relationship maintenance:

“We can handle the distances because we have supplier developers. And they are often individuals who previously might have been production technicians locally. They now work directly with our subcontractors and sister companies where they drive the improvement work together.”

- Head of Product, GNM

“We work with a sourcing partner who is based in [Asian city] with whom we have a very close relationship with and with very transparent communication. [...] they organize themselves that way because of our requirements to do that, but also that we have a person who always works with us so that that person is like a part of the company and knows everything about us”.

- Product Line Manager, Reshorer 1

5.3.2. Innovation Culture as Independent of Manufacturing Location

Beyond structures, managers across all firms describe organizational culture as the underlying condition that determines whether any of the prior sensing- or seizing-efforts take hold:

“Culture [referring to the reshoring facility] is perhaps even more important. How you build such a culture cannot be copied; it is a real craft. If you don't have that aspect, no innovation will come out.”

- Commercial Executive, Reshorer 1

Reshorer 2 also describes that, for their offshore production, culture mediates how receptive manufacturing personnel are to change and whether they contribute ideas or simply execute instructions:

“Historically, when something is developed in Asia, one says: ‘Now we are going to do this.’ In Asia, it has often been the case that people simply do it, without questioning. In Europe, it is more common to ask, ‘why should I do this?’ and perhaps suggest alternative solutions before getting started. [...] That said, in [Asian country] we have tried to build an organization, both in manufacturing and development, that is more open. People should be able to say what they think is wrong, give feedback, and try to think outside the box. I also think we have created a sense that you can approach anyone and talk, without any problems.”

- Strategy Lead, Reshorer 2

5.4. Synthesis

Together, sections 5.1–5.3 reveal a consistent pattern: the firms seemingly most capable of acting on innovation opportunities are not necessarily those with manufacturing closest to home, but those that have cultivated a particular closeness between headquarters and production, either deliberately or by default. What such closeness entails is analyzed in Chapter 6.

6. Analysis

The following analysis draws on Teece's (1997; 2007) dynamic capabilities framework, partially complemented by Boschma's (2005) multidimensional proximity-concept. We observe that the relevant variable in how domestic manufacturing locations influence firms' abilities to sense, seize, and transform innovation opportunities appears not to be geographical co-location per se, but what we conceptualize as *relational proximity*; the social, organizational, institutional, and cognitive closeness between managers and the manufacturing unit.

6.1. Sensing for Innovation Opportunities

Although domestic manufacturing appears to play a limited role in how managers sense, it contributes through what Teece (2007) terms *local* search: manufacturing personnel, through direct engagement with production processes, identify process-level improvements otherwise invisible to headquarters. However, as illustrated by the GNM, remote manufacturing sites are also capable of generating such insights. Interpreting domestic manufacturing as a unique sensing advantage for process innovation thus appears, at least partly, overstated.

Instead, its more distinctive value seemingly lie in how reliably signals reach decision-makers responsible for seizing – and if not, increasing the possibility of these managers identifying them anyhow. Teece (1997; 2007) emphasizes that successful sensing requires mechanisms to keep management informed, highlighting “management by walking about” as one such practice. In large, geographically fragmented organizations such as the GNM, information decay arises as signals move through distances and hierarchical layers and are filtered by intermediate actors who determine what is worth escalating (Teece, 2007). Although the Head of Development at the GNM provides an example where such information did reach top-management, Teece’s argument implies that much potentially valuable information does not; either because it is recognized as insignificant or lost between organizational layers. A related, yet inverted, flaw is illustrated by the Head of Product at the Home Champion, where management had identified potential process-improvements but unable to convey it to manufacturing-personnel when denied from visiting the remote site. As Teece (2007) cautions that firms become vulnerable when sensing is left to a few individuals, in this case manufacturing personnel, the findings suggest that domestic manufacturing reduces this dependence by allowing managers to “walk about.”

Moreover, the respondents point to a trade-off whereby remote manufacturers provide valuable insights into trends and competitor activity, implying that distancing from these environments may deprive firms of access to rich knowledge-networks. Relevant here is Teece’s (2007) notion of *distant* search, alongside Boschma’s concept of *cognitive lock-in*. Akin to Teece’s (2007) argument that overcoming a narrow search horizon is difficult for managers searching solely locally, Boschma (2005) argues that actors within a firm’s network must maintain optimal cognitive distance to avoid straitjacketing itself. If ‘managers walking about’ illustrated that some shared knowledge is necessary for mutual

understanding, here, the managers' accounts reflect the importance of being sufficiently distant to enable divergent ideas.

On the other hand, the fact that the Home Champion conduct distant search in other ways than through manufacturers align with the argument that access to heterogeneous knowledge is more about the maintenance of relationships spanning different cognitive communities than physical location with a particular actor or unit (Boschma, 2005). This suggests that geographical proximity to manufacturing per se does not determine how effectively a firm balances local and distant search but can be mitigated through deliberate relationship-building – a point we return to in Section 6.4.

6.2. Seizing Innovation Opportunities

For 'seizing,' the effects of a domestic manufacturing location also appear more about the underlying mechanisms of trust-building and iteration it tends to enable than the geographical closeness itself. The findings reveal that it may facilitate "defeating the naysayers" (Teece, 2007), as *geographical* proximity essentially strengthens *social* proximity (Boschma, 2005): physical visits to the factory floor allow managers to build personal ties, and where social proximity is high, Teece's (2007) naysayer problem is more manageable, as promoters can secure buy-in through established relationships rather than formal authority. Similarly, co-locating manufacturing units with other functions may increase the probability that an innovation opportunity is acted upon, as it shortens the iteration cycle needed to reduce managers' decision-making bias (Teece, 2007). Namely, Teece (2007) emphasizes that firms must construct organizational boundaries to reduce the likelihood that managers reject an innovation opportunity simply because they deem the costs insufficiently concrete. Our findings suggest that, when managers can "walk about," they directly observe results and adapt continuously; in theory allowing more 'seizing' to happen.

However, the uniqueness of such benefit to domestic manufacturing appears questionable here too, as the Strategy Lead at Reshorer 2 describes establishing similar relationships with the remote sites, although with a tad more effort and travel-time. For the Swedish site, he further highlights that such relationships are not "given" simply because managers and manufacturing-personnel are closeby. Digital tools like 3D-printing are also described to compensate the distance for iterations. Consequently, whether domestic or remote, relationship-building and flexibility for securing buy-in appears as a capability that must be actively developed, where geographical proximity may facilitate this process, but not without effort.

Moreover, the competence trade-off described by Reshorer 1 and 2 suggests that domestic manufacturing may confer an inferior ability to seize innovation opportunities compared to remote alternatives in specialized knowledge hubs, as critical know-how is often difficult for domestic facilities to replicate. This aligns with Teece's (2007) argument that when world-class capabilities lie outside the firm, leveraging external sources can be essential for competitiveness. However, in our sample, the perceived significance of this trade-off varies significantly across the industries represented. For instance, unlike the GNM and the Reshorers – with industry expertise concentrated in Asia – the Home Champion did not consider competence loss a concern, even when prompted to

hypothetically reflect on remote alternatives. As the Home Champion operates in an industry with no significant offshore knowledge hubs, Teece (2007) would attribute this to knowledge residing *within* the firm's internal network. Thus, unlike previous trade-offs, which can be addressed through relationship-building, the impact on innovation appears structural and largely beyond managerial control once the manufacturing location decision is made – a point revisited in Section 6.4.

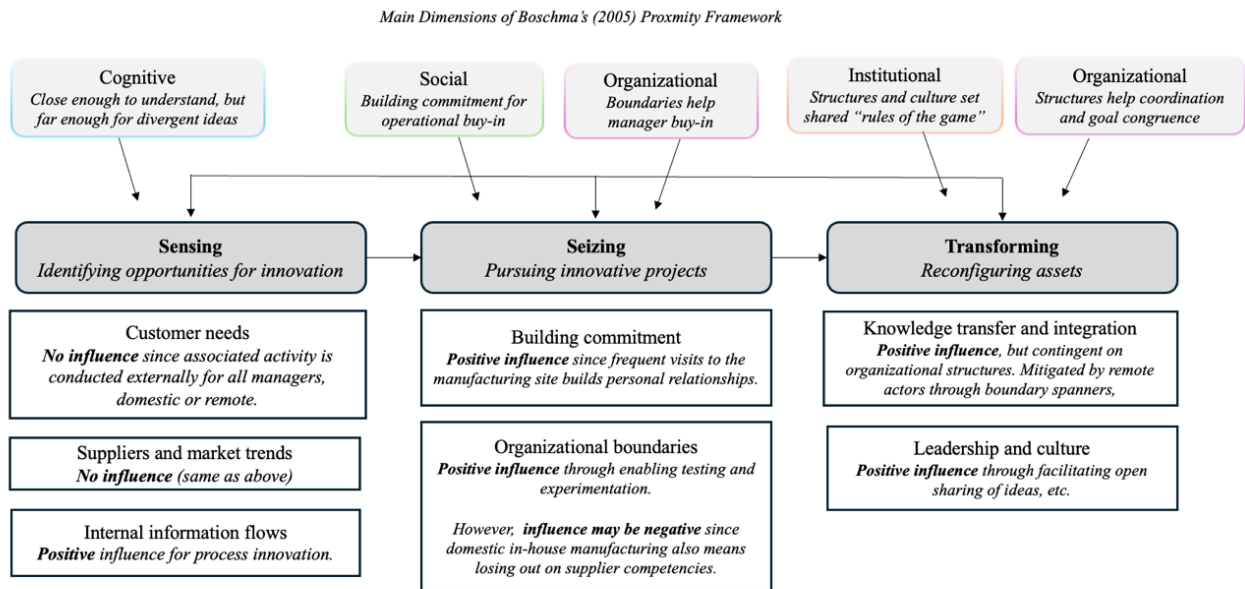
6.3. Transforming Assets for Innovation

Lastly, the 'transforming' stage seemingly reinforces the same logic as prior: firms do not passively receive the conditions for innovation from their manufacturing location but produce them; here, either structurally or culturally. Teece (2007) highlights knowledge transfer and integration as a crucial micro-foundation of transforming. The findings reveal that firms successfully managing offshore manufacturing while maintaining innovative performance commonly employ intermediary communication structures between units. As illustrated by the Product Line Manager at Reshorer 1, such intermediaries are often located near the offshore site while remaining closely tied to headquarters – bridging what Boschma (2005) terms *institutional* proximity by aligning the cultural norms and working practices across units. The Head of Offerings at Reshorer 1 further illustrates that even domestic manufacturing does not guarantee effective knowledge transfer: unified reporting lines were needed to prevent production and commercial functions from working at cross-purposes, suggesting that *organizational* proximity must be actively constructed regardless of geography.

Teece (2007) also establishes top management leadership as key to sustaining dynamic capabilities through continuous renewal. The findings suggest that geographical proximity to manufacturing can support this by enabling the kind of direct oversight that "management by walking about" implies, but that boundary-spanning roles can perform a comparable function across distance by maintaining the relational connection that such oversight depends on. Doing 'cultural work,' as illustrated by the Strategy Lead at Reshorer 2, works similarly: the openness and idea-contribution that tends to accompany manufacturing in Sweden can be promoted even where it is not historically the norm, through leadership that actively encourages manufacturing personnel to speak their mind and not simply follow instructions.

Thus, just like for sensing and seizing, the same theme of firms not possessing but having to produce proximity emerges; where domestic manufacturing is a facilitator, but not a necessity. The findings from sections 6.1-6.3 are summarized in Figure 3.

Figure 3. Summary of how Domestic Manufacturing affects Sensing, Seizing, and Transforming (Björnfot & Steiner Lundgren, 2026)



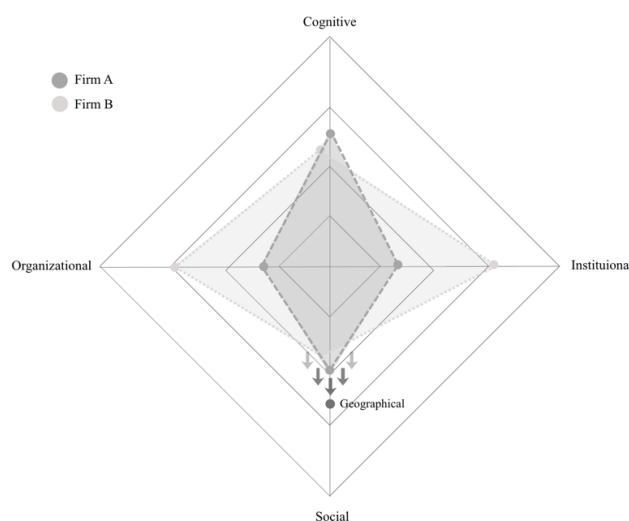
6.4. The Shared Logic of Relational Proximity

Taken together, sections 6.1–6.3 reveal a tension in how domestic manufacturing location influences firms' innovative capability. On the one hand having manufacturing close facilitates the building of social proximity through frequent visits to the site, as well as the ability to more frequently test and experiment due to a high level of organizational proximity. On the other, we also find that these proximity factors are not necessarily unique to domestic manufacturers, as they may be built across a distance if supported by intermediary communication structure.

An overarching perspective, thus, suggests that what ultimately drives a firm's ability to seize and transform innovations is not geographical proximity to manufacturing per se, but rather its ability to establish social, organizational, institutional, and cognitive closeness between headquarters and the manufacturing unit. We conceptualize this as *relational proximity*, building on four of Boschma's (2005) original dimensions.

Figure 4 illustrates relational proximity as a radar chart, where the two shaded grey areas represent the relational proximity of two example firms. The specific illustration and firms are not in focus; rather, the key idea is that firms can achieve similar levels of relational proximity through different combinations of social, cognitive, organizational, and institutional dimensions, depending on their characteristics. For instance, a large firm such as GNM – represented by Firm A – may rely more on institutional and organizational mechanisms, such as boundary spanners and optimally designed role-structures, as establishing direct relationships across nearly a hundred manufacturing units is, even for highly capable managers, practically infeasible. Our empirical findings reflect this pattern. By contrast, a Reshorer or Home Champion – Firm B – may be smaller in size, with only a few, mainly domestic, manufacturing sites. Such firms can rely more heavily on social proximity, building relationships through direct interaction and engagement.

Figure 4. A model on Relational Proximity (Björnfot & Steiner Lundgren, 2026; Based on Boschma, 2005)



As indicated by the downward-pointing arrows, the figure also illustrates how domestic manufacturing location affects relational proximity. Geographical proximity can facilitate relational proximity by “boosting,” or in some cases constraining, the development of other dimensions. For example, it may enhance social proximity by making it easier to build commitment and relationships between headquarters and manufacturing personnel. However, the key point is that geographical proximity neither guarantees nor is necessary for relational proximity; as illustrated by the Strategy Lead at Reshorer 2, it functions as a facilitator rather than a determinant.

Importantly, our findings and analysis suggest a firm may, in theory, have much geographical proximity – such as exclusively domestic manufacturing – and still fail to develop relational proximity. This may occur if the firm does not actively engage with its manufacturing units or lacks the processes or roles needed to allocate time and attention to such engagement. Conversely, firms can maintain relational proximity despite offshore manufacturing by implementing effective intermediary communication structures. However, note that relational proximity is primarily intra-organizational, and as highlighted in Section 6.2, *competence* is one structural element it seemingly cannot bridge. For firms like Reshorer 1 and 2, where world-class capabilities are concentrated in offshore knowledge-hubs, Teece (2007) would likely argue that domestic manufacturing may constitute a persistent disadvantage in innovation capability that no amount of relationship-building can resolve; at least until the broader industrial and macro-level landscape of the domestic market develops to compensate.

7. Conclusions

7.1. Answering the Research Question

The study aimed to answer the following research question:

How do domestic manufacturing locations influence firms' ability to sense, seize, and transform assets for innovation opportunities?

We find that domestic manufacturing locations have a limited effect on sensing: firms identify market trends largely independently of where they produce. An exception arises for process innovations, where geographical proximity increases how reliably operational signals reach relevant decision-makers, reducing the information decay that tends to occur across hierarchical layers and physical distance. For seizing and transforming, domestic manufacturing matters more, as it tends to facilitate the social and organizational conditions needed to build commitment, enable faster iteration, and sustain cultural change. However, our findings consistently show that these conditions are neither automatically produced by geographical co-location nor exclusive to it. Rather, they must be actively constructed by firms regardless of where manufacturing sits.

Taken together, our findings suggest that geographical closeness to manufacturing is not a dynamic capability in itself. Instead, we conceptualize relational proximity – the social, organizational, institutional, and cognitive closeness between managers and the manufacturing unit – as the aggregate mechanism through which domestic manufacturing locations influence firms' ability to sense, seize, and transform innovation opportunities, drawing on Boschma (2005).

Our findings answer both the call of Cortes (2023) to combine SCM research with established proximity frameworks and extend prior work by Theyel and Hofmann (2021), who establish that domestic manufacturing enhances innovation capability but treat geographical proximity as the primary explanation. Our analysis suggests that what they observe is better explained by the relational conditions that tend to co-vary with geographical closeness, and that can be constructed independently of it. This shifts the analytical focus in SCM literature from manufacturing location as a structural given to proximity as a firm-specific achievement. It also makes practically concrete Theyel and Hofmann's (2021) gesture toward the importance of specific leadership and structures as enabling conditions: here, in the form of boundary-spanning roles, unified reporting lines, or deliberate cultural investments.

7.2. Directions for Future Research

Our study touches upon the role of organizational design in facilitating innovation by highlighting how structural elements, such as managerial responsibility for manufacturing units and the use of boundary-spanning roles, contribute to establishing relational proximity. However, these are treated as mechanisms within a broader argument rather than as central explanatory factors. Teece (2007) notes that, beyond organizational

structure, firms can also deploy formal performance management tools – including financial controls and incentive systems – to shape innovative behavior. This connects to a broader literature on how measurement systems either enable or suppress innovation (Christensen et al., 2008). A more systematic examination of how performance management systems interact with relational proximity would fall within the domain of managerial accounting and presents a promising avenue for future research.

Our findings further suggest that leadership plays a critical role in facilitating innovation processes – yet we focus on the managers as proxies of the firm and not individuals. Future research could build on this through a sensemaking lens, examining how individual leaders interpret and communicate the strategic relevance of manufacturing-related signals, and how such interpretations shape what the organization ultimately acts upon. Such a study could productively draw on both middle management and more operational perspectives not captured here.

Finally, given that this study is qualitative and limited to four Swedish firms, a natural direction would be to test the relational proximity concept elsewhere, or even quantitatively. Future research could operationalize the four dimensions of relational proximity through survey instruments and examine whether higher aggregate scores predict better innovation outcomes across a larger sample of manufacturing firms. Such a study could investigate whether the four dimensions carry equal weight or whether certain combinations are sufficient.

7.3. Conclusion

For managers pondering whether to “*manufacture at home or not*,” this study suggests such question itself may be partially misdirected. The more consequential question is whether the firm has invested in the relational conditions – social ties, organizational structures, cultural practices, and shared cognitive frameworks – that allow manufacturing and managers to work in genuine proximity. Domestic manufacturing can facilitate this process, and in some respects makes it more likely; but it neither guarantees it nor is required for it. Firms with entirely offshore production can achieve high relational proximity through deliberate investment in boundary-spanning roles and organizational alignment. Conversely, firms that manufacture domestically but neglect these investments may find that geographical closeness alone delivers little of the innovation benefit they anticipated.

Theoretically, this study contributes to SCM literature by reframing proximity from something geographical to an organizational practice. In doing so, it brings two bodies of literature – SCM-works like Theyel & Hofmann (2021), and Boschma's (2005) proximity concept – into productive dialogue for the first time, responding to Cortes' (2023) call for such an integration. The result is a more fine-grained account of the mechanisms through which manufacturing location decisions translate, or fail to translate, into innovation capability.

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9. Appendices

9.1. Appendix 1. Interview questions.

Topic: Mapping

- Can you tell us about your role in the company?
- Where does your company currently have manufacturing?
 - If in multiple locations: How much do you work with the manufacturing sites in X versus Y?
 - How has this developed over time?
- How do you define innovation in your work and organization?
- If your company wants to develop a new product, what does the process look like?

Topic: Outside-in - Market and external screening

- How do you scan for new opportunities?
- When you identify valuable information outside- or inside the organization that could improve your value creation, how do you act on it?
- Can you give an example of this, related to process or product innovation?
- How, if at all, does it matter whether production is in Sweden when you act on this information?

Topic: Inside-out - Information flows with production and HQ

- How is collaboration between production and central functions such as R&D, product development, and commercial roles organized?
- In your view, what determines whether proximity between production and these functions makes a difference for your innovation capability?
- Do you interact directly with production, or does that information come through other functions in the company?
- What role does production play in identifying new ideas or improvements?
- How do you receive signals about new opportunities or improvements related to production?
- When you receive valuable information from production or other parts of the organization, how do you act on it?
- Can you give an example of this, related to process or product innovation?
- How does it matter whether production is in Sweden when you act on this information?

Topic: Closing question

- Is there anything we haven't covered, or anything else you would like to add?

9.2. **Appendix 2:** Detailed overview of interviews.

Company	Role in company	Duration
Reshorer 1	Commercial Executive	00:51
	Product Director	00:55
	Head of Offerings	00:42
	Product Line Manager	00:54
Global network manager	Product Strategy Director	01:43
	Procurement Director	00:49
	Head of Development	00:43
	Head of Product	01:01
Home champion	Operations Executive	00:37
	Strategic Change Lead	01:15
	Head of Portfolio	00:42
Reshorer 2	Supply Chain Executive	00:48
	Strategy Lead	00:50

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