Is knowledge like salmon - does it jump upstream?

The workings of vertical reverse knowledge flows from emerging market subsidiaries

Master's thesis project in International Business and Trade

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Abstract

Purpose – The purpose of this study is to increase the understanding of how reverse knowledge flows from emerging market subsidiaries work and what affects them. Consequently, the study contributes to the global business behavior of MNCs and how to benefit from knowledge within the company network.

Methodology – This study has been conducted as a multiple case study. The primary data was collected through ten MNC subsidiaries located in Asian emerging markets with HQs in Europe.

Main findings – Knowledge sharing through formal communication channels in interoffice meetings is found to provide extensive value for reverse knowledge flows between the subsidiary and its HQ. Additionally, modern digital software such as video conference programs and intranets are found to be beneficial for knowledge sharing. In addition, perceived distance is decreased between the MNC employees by the digital tools, even though spatial distance is large. In addition, gaining a better understanding of the contrasting environments that the subsidiary and HQ operate in affects reverse knowledge flows positively. This is encouraged by using expatriates and increased awareness of the institutional profile of the host country.

Practical implications – For HQ managers, having a clear strategy on how to utilize the knowledge gained by repatriates in its subsidiaries is vital for increased knowledge exchange. The HQ-subsidiary reporting structure needs to be clear and avoid too many points of contact, as knowledge otherwise gets lost. For emerging market subsidiary managers, the ability to communicate sensitive feedback to HQ constructively can be beneficial for knowledge sharing.

Keywords: Knowledge flows, Reverse knowledge flows, RKF, HQ, Headquarters, subsidiary, HQ-subsidiary, subsidiary-HQ, Emerging market, Asian market, Asian emerging markets

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List of abbreviations

GDP = Gross Domestic Product

HQ = Headquarters

MNC = Multinational Corporation

R&D = Research and Development

1 Introduction

1.1 Background

The global business environment has substantially changed in the last decades (Buckley, 2009). The changes have developed an increasingly local-global perspective on business. This means that companies set up offices, production facilities, and R&D centers in foreign markets rather than near the headquarter's (HQ) location (Martinez & Jarillo, 1989; Kostova, Marano & Tallman, 2016).

Nowadays, the HQ develops subsidiaries in locations that are scarcely known for the HQ but are vital for business expansion in terms of growth and success on the global market (Hoenen & Kostova, 2015). Previous research observes that there are no best practices on how to globalize businesses (Geppert, Mattern & William, 2003). Hence, there are different ways for companies to increase their global presence, one of which is having majority-owned subsidiaries in other locations than the HQ´s placement. The interaction between HQ and subsidiaries is therefore important to study (Geppert et al., 2003). The HQ-subsidiary research has placed weight on a growing form of international company structure in the past decades called transnational corporations, which means that subsidiaries act locally and HQ allows for flexibility in adapting to local conditions while the company simultaneously achieves goals on global inclusion (Bartlett & Ghoshal, 1987).

Knowledge flows are critical for an MNC because they transfer know-how and common knowledge that may be unique to a subsidiary yet benefit the entire MNC. Even if these knowledge flows are shared in written text, orally, via meetings, coffee breaks, or formal policy revisions, the MNC could benefit from creating and adopting the knowledge flows (Argote & Ingram, 2000; Schulz, 2001; Van Wijk, Jansen & Lyles, 2008). On one hand, the sender is in charge of establishing and sending knowledge. On the other hand, the receiver is in charge of receiving the knowledge. Knowledge flows will not occur if either the sender or receiver does not interact with the knowledge laid out (Szulanski, 2000). Therefore, both actors need to participate in the knowledge flow actively.

A recent development within the HQ-subsidiary literature is the concept of vertical reverse knowledge flows, meaning knowledge that originates from a company's subsidiaries and is conveyed to HQ. This originates in the previously explored internal knowledge flows

between business units in an organization (Gupta & Govindarajan, 2000). However, unlike the earlier iteration, there is now an increased understanding that the HQ is not necessarily the source of all proprietary knowledge. As the concept of the MNC as a network of knowledge and business has grown, so has the concept that flows of knowledge from subsidiaries to the HQ are just as crucial to the competitiveness of the organization (Michailova & Mustaffa, 2012).

Two possible drivers of vertical reverse knowledge flows are HQ problemistic search and HQ absorptive capacity. Problemistic search focuses on the knowledge HQ is reaching to gain within a subsidiary (Minbaeva, Pedersen, Björkman, Fey & Park, 2003). Absorptive capacity is driven by the ability and motivation to assimilate the knowledge gained from the subsidiaries (Jonsson & Foss, 2011). Problemistic search and absorptive capacity are important aspects regarding the effectiveness of reverse knowledge flow from the recipient´s point of view, hence, these create limitations in what type of knowledge is absorbed by HQ. If HQ does not have the ability or motivation to absorb, or if they do not stand in front of a problem, knowledge stickiness could be manifested as difficulty experienced in transferring knowledge and trying to recreate an ambiguous set of routines in a new setting according to Szulanski (2000).

There are some key factors that positively or negatively affect vertical reverse knowledge flows. We do not know much about what factors affect vertical reverse knowledge flows and in what way, but there are some that have been investigated previously. Some of them include the spatial distance between HQ and subsidiary (Baaij & Slangen, 2013), the formal communication channels between the offices (Gupta & Govindarajan, 2000), and language differences (Peltokorpi & Yamao, 2017). Furthermore, there are a large number of emerging countries in the Asian market that are at the forefront for MNCs to integrate to their global presence. Due to the fact that the emerging markets' business environment is changing more rapidly compared to mature markets, this could interfere with the MNCs' development (Anderson, Covin & Slevin, 2009).

Furthermore, the relationship between HQ and subsidiaries is unique as subsidiaries exist to deliver a variety of outcomes. Some subsidiaries are explicitly established or acquired to implement decisions from HQ, while others are behaving as their own autonomous company within the MNC network (Rabbiosi & Santangelo, 2019; Rašković, Brenčič & Jaklič, 2013;

Geppert et al., 2003). The sentiment is echoed that we do not know how much of the flow of knowledge is actually put to use by the organization (Noorderhaven & Harzing, 2009).

1.2 Problematization

While knowledge flow is a fundamental concept for the competitive advantage of the MNC, there is a need for an increased understanding of the intricacies of how knowledge is shared between business units in the MNC network. Two matters regarding the knowledge flow literature that deserve increased attention are the underwhelming amount of research on the subsidiary view of reverse knowledge flows, as well as the nearsighted focus on American and European cases when forming frameworks.

In the past, the subsidiary viewpoint of vertical reverse knowledge flows has been underrepresented in the MNC knowledge flow literature. The inadequate focus is logical since the concept of reverse knowledge flows was explicitly explored at the start of the 2000s (e.g., Håkanson & Nobel, 2000; Zhou & Frost, 2003), but it is still not extensive to this day. Even with this in mind, the subsidiary literature has regrettably few studies on reverse knowledge flows from its perspective (Ambos, Ambos & Schlegelmilch, 2006; Meyer et al., 2020). The majority of the reverse knowledge flow research uses the MNC HQ instead as the point of view. This is inconsistent with the reality of the current MNC business environment. There is increasingly a view of the MNC as an ecosystem of unique knowledge carriers rather than consisting of HQ being the creator of knowledge with subsidiaries as its implementers. In these knowledge-diverse organizations, managing the knowledge between offices is not solely important, it is vital for the competitiveness of the MNCs. The reason is that MNC growth often comes from the subsidiaries since they have proximity to the market (Birkinshaw & Hood, 2001). For example, a multinational ATM manufacturer only grew as a business once the product development was moved from the HQ to its subsidiary (Birkinshaw & Hood, 2001). When considering the practical relevance of knowledge flowing not only from HQ but also to HQ, the importance of vertical reverse knowledge flow as a research subject becomes clear. Thus, it is safe to say that viewing the phenomenon of vertical reverse knowledge flows from a subsidiary perspective is underrepresented in the knowledge flow literature.

The majority of knowledge flow literature has been written in American and European business contexts, which may not fit in another environment such as Asian emerging market countries. In the subsidiary management literature, the most popular host country context of empirical case studies is China, followed by a list of countries such as the US, UK, and Australia (Meyer, Li & Schotter, 2020). This reflects an interest in specifically China since MNCs set up subsidiaries in China during its economic surge, but an otherwise small amount of research that considers the other Asian emerging market regions. This lack of comparative research is problematic since emerging markets, and in particular Asian markets, are nowadays essential players in the global economy and their roles will grow further in the coming decades. In fact, economists have ushered the 2000s as the 'Asian century' and the continent could account for more than 50% of global GDP by 2040 (Tonby, Woetzel, Choi, Seong & Wang, 2019; Khanna, 2019). Additionally, there are environmental differences that can cause intercultural miscommunication between HQs in Europe and North America and its subsidiaries in Asian emerging markets, which create a whole setup for missed opportunities to gain knowledge (Brett, Behfar & Sanchez-Burks, 2013). Therefore, there is a great need for MNCs to understand these markets they operate in through subsidiaries better and know how to leverage knowledge gained there.

Reverse knowledge flows get affected by many factors and drivers on multiple dimensions. We don't know that much about which factors change what part of the reverse knowledge flow from the subsidiary view. Additionally, some of these factors might act differently when the subsidiary and HQ are very diverse, for example when the subsidiary is in an Asian emerging market while the HQ is in a European mature market. Therefore, this would be of interest to find out more about.

Based on the current opportunities on the topic of knowledge flows, we would like to investigate a research topic that covers the areas of how reverse knowledge flows are driven and affected by factors, from an emerging market subsidiary perspective. This topic is of practical interest to managers working at an MNC that is interested in increased awareness of how to utilize the internal knowledge base in the MNC network. From the perspective of the emerging market subsidiary, having awareness of how to effectively share relevant knowledge with the HQ may help it to get reciprocal assistance and resources from the HQ.

1.3 Purpose and research question

The purpose of this study is to increase the understanding of how reverse knowledge flows work and what affects them. We want to develop an understanding of the drivers of knowledge flows and how different factors affect reverse knowledge flows. Consequently, the study shall contribute to the global business behavior of MNCs and how to utilize the knowledge within the company network.

Based on the discussion above, the research question of this study is:
How do vertical reverse knowledge flows unfold from emerging market subsidiaries?

With the research question in mind, there is a need for a greater understanding of the functioning of vertical reverse knowledge flows. To be able to answer the main research questions, it is necessary to understand what the drivers and factors might be. Therefore, this study will answer this research sub-question:
What are the drivers and factors of reverse knowledge flows from emerging market subsidiaries?

1.4 Delimitation

Limitations have been made to the context of knowledge and behavior. Product development, R&D, and other manifestations of knowledge have been excluded, since the focus of the study is on strategies and know-how. Furthermore, this study has been limited to the relation between HQ and its subsidiary and does not research the relation between two subsidiaries within the same MNC.

Another limitation was made concerning the drivers and factors. There are plenty of drivers and factors which could affect vertical reverse knowledge flows. Hence, this study chose to limit the amount to some interesting features which are distinct from each other.

1.5 Chapter overview

In Chapter 1, an overview of the background and problematization of the topic is presented. The research question and delimitations are presented to get an understanding of what specifically shall be researched and what types of limitations have been thought of. In Chapter 2, the theoretical framework is presented. This part will then be used to contribute to

the result of the empirical findings and to be able to contribute to the already existing research. In the third chapter, the methodological considerations are presented along with the research design and a description of how primary and secondary data were collected. Further, the data analysis, trustworthiness of the study, and ethical considerations were outlined. In Chapter 4, the empirical findings from the primary and secondary data collection are presented based on the drivers and factors found in the theoretical framework. Throughout Chapter 5, the empirical findings and the theoretical framework are compared and analyzed. In Chapter 6, the conclusions and main findings of the study are presented. Further, theoretical contributions and managerial implications are brought up. Lastly, limitations of this study are presented along with a discussion of future research on the topic.

2 Theoretical framework

This chapter synthesizes knowledge flow subsidiary literature on how reverse knowledge flows from emerging market subsidiaries unfold. First, the MNC structure is introduced from a knowledge-based and emerging market view. After exploring the knowledge flow subsidiary literature and the concept of reverse knowledge flows, we identified the main drivers of reverse knowledge flows. Finally, we outline prominent factors that affect reverse knowledge flows and land in a theoretical framework.

2.1 MNC subsidiary literature

2.1.1 The MNC as a knowledge network

We take a knowledge-based internalization view of the MNC, which means that the MNC is perceived as a network that coordinates tacit and explicit knowledge formed within its confines (Kogut & Zander, 1992; Teece, 2014). Tacit knowledge refers to knowing how to perform a task from personal experiences, while explicit knowledge denotes knowledge that is documented and kept in text form (Nonaka, 1994). At its core, the purpose of the MNC is to act as a network of tacit and explicit knowledge bases, with competitive advantages derived from sharing knowledge between the HQ and subsidiaries.

HQ and subsidiaries are the important nodes in the MNC network between which knowledge flows take place. The HQ in an MNC can be defined as the orchestrator of capabilities and knowledge at the MNC, which can improve the flow of knowledge between subsidiaries (Teece, 2014; Buckley, 2009). Consequently, a subsidiary in an MNC is defined as "*any operational unit controlled by the MNE [MNC] and situated outside the host country.*" (Birkinshaw, Hood & Jonsson, 1998: p. 224).

2.1.2 Emerging market subsidiary definition

This study is focused on subsidiaries located in emerging markets in Asia with HQ in any mature country in Europe, though the study does also include countries that have recently been emerging markets. The definition of emerging markets used in this study is "*an economy that experiences considerable economic growth and possesses some, but not all, characteristics of a developed economy"* (CFI, 2022). Thereby, the definition of an emerging market subsidiary is a majority-owned operational unit controlled by an MNC which is

located in a country that has considerable economic growth and some of the prerequisites for a developed economy.

2.2 Knowledge flows

2.2.1 Organizational knowledge flow

There are multiple ways to define an organizational knowledge flow. Organizational knowledge flow has been defined as the process in which an organizational unit is influenced by another unit's experience or knowledge (Argote & Ingram, 2000; Van Wijk et al., 2008). Another definition of organizational knowledge flow explains it as *"the aggregate know-how and information transmitted per unit of time"* (Schulz, 2001: 662). With this definition, all methods of exchanging knowledge are accounted for, including written and oral communications, meetings, policy revisions, etc. The above-mentioned definitions imply that organizational knowledge flows can be defined as the combined know-how and information shared between organizational units.

One method of structuring the organizational knowledge flow process is brought forth by Szulanski (2000), who summarizes previous research as four distinct stages of knowledge flow. The first phase is the initiation stage, in which the leadup to the decision to transfer knowledge takes place. Secondly, the implementation stage prepares the receiving unit of the knowledge by 'learning before doing'. This act happens either by outlining the implementation beforehand or conducting a controlled experiment before the new knowledge is implemented. Thirdly, during the ramp-up stage, solutions are found to problems through 'learning by doing'. Finally, in the integration stage, the transferred knowledge is fully implemented in the receiving unit (Szulanski, 2000). The important aspect to note from Szulanski's (2000) model is that both the sender of the organizational knowledge flow and the receiver of the knowledge flow need to be involved in the process for it to happen at all.

2.2.2 Reverse knowledge flow

While an intuitive assumption regarding organizational knowledge flows is that they occur from the MNC HQ sharing knowledge with its subsidiaries, the opposite is also the case. Organizational knowledge flow from a foreign subsidiary to its HQ is a concept defined as vertical reverse knowledge flows (Ambos et al., 2006). From here on, this concept will be referred to solely as reverse knowledge flows.

Reverse knowledge flows of subsidiary knowledge provide substantial value to the MNC. The phenomenon has been shown to be crucial for MNC innovation (Phene & Almeida, 2008) and advantageous to its competitive advantages in general when harnessed (Ambos et al., 2006; Monteiro, Arvidsson & Birkinshaw, 2008; Najafi-Tavani, Giroud & Sinkovics, 2012; Rabbiosi & Santangelo, 2013). Related to the MNC as a knowledge network, reverse knowledge flows create value by disseminating the knowledge gained in the local environment to the rest of the organization. The subsidiary that shares the knowledge tends to be rewarded with attention and – subsequently – resources from the HQ (Kumar, 2013). That said, not all reverse knowledge flows are equally valuable, and they are not automatically beneficial for the HQ (Ambos et al., 2006).

The efficacy of reverse knowledge flows in general also depends on the type of knowledge being transferred. Tacit knowledge is harder to transfer since it is lodged in the local organizational experiences and routines, while explicit knowledge is much easier since it is already codified (Gaur, Ma & Ge, 2019). Language and cultural dimensions tend to have a larger impact on tacit knowledge flow effectiveness since it requires human involvement to a higher degree than explicit knowledge.

The hindering of reverse knowledge flows can be referred to as knowledge stickiness. Knowledge stickiness is the encountered difficulty in knowledge flow and attempting to recreate applied knowledge in another environment (Szulanski, 2000). Knowledge stickiness can appear in any of the four stages of the knowledge flow process: initiation, implementation, ramp-up, and integration. However, regarding knowledge flowing from MNC subsidiaries, the first two stages of the process are heavily related; difficulties to perceive and act upon knowledge flow opportunities and difficulty to bridge the communication gap between the sender and receiver of knowledge. Szulanski´s (2000) model of stickiness implies that knowledge stickiness hinders reverse knowledge flows within the whole organization.

Another reason that reverse knowledge flows are distinct is that they are affected by different factors. Reverse knowledge flows do not happen in isolation, rather they are affected by subsidiary and HQ characteristics, attributes changing the inter-unit flow itself, and the nature of the knowledge being shared (Argote, McEvily & Reagans, 2003). Some of the major

factors that may change the strength of reverse knowledge flows in some way are the institutional profile of the subsidiary country (Kostova & Roth, 2002), the language differences between the units (Peltokorpi & Yamao, 2017), the spatial distance between subsidiary and HQ (Baaij & Slangen, 2013), the level of autonomy of the subsidiary (Oh & Anchor, 2017), the formal communication channels in place (Gupta & Govindarajan, 2000), and the usage of expatriates (Meyer et al., 2020).

2.3 Drivers of knowledge flows

Reverse knowledge flows are not created from thin air. In the end, it is up to the HQ if a reverse knowledge flow takes place from the subsidiary. Following this subchapter, two main drivers of reverse knowledge flows are presented: HQ problemistic search and HQ absorptive capacity. If HQ does not actively search for the knowledge (problemistic search) and neither possesses the ability nor the willingness to soak up the knowledge from the subsidiary (absorptive capacity), a reverse knowledge flow will not take place.

2.3.1 HQ problemistic search for knowledge

Problemistic search is a business process meaning that business units search for a solution to an existing problem that may be found within the organization (Jonsson & Foss, 2011). Put in the context of subsidiary reverse knowledge flow literature, problemistic search refers to when the MNC HQ actively forages for knowledge from the subsidiaries that is useful to its current challenges.

Problemistic search suggests that the perception of the knowledge flow receiver is what allows for knowledge flows to occur (Monteiro et al., 2008). Furthermore, this driver works for the creation of reverse knowledge flows as well since it functions similarly to forward knowledge flows but in the opposite direction. Previous research has studied how problemistic search causes knowledge flows from an HQ perspective (Monteiro et al., 2008). Investigation of the subsidiary's perspective on problemistic search by HQ has not been analyzed to such extent and needs further investigation.

There are negative aspects of problemistic search that could impact the knowledge sharing within the MNC unfavorably. First, the management of HQ could be affecting the search for knowledge, as they see the challenges and want to act on it (Hu, Gentry, Quigley & Boivie,

2021). This is a potential issue since they have a limited perspective of what knowledge exists in the rest of the organization and could lack awareness of what knowledge truly is irrelevant or not for the MNC. The HQ management often acts as if having blinders on, meaning that they embrace their own problems and do not involve new information from others (Hu et al., 2021). The second issue is that HQ management can have preconceived ideas of what the quality of the incoming knowledge flow is based on which subsidiary sends it. The HQ easily makes quality assumptions depending on previous experiences and the level of trust it has with the particular subsidiary (Monteiro et al., 2008). When capabilities are high at the subsidiary, the HQ presumes that the knowledge they gain will benefit the problem they stand in front of (Monteiro et al., 2008).

2.3.2 HQ absorptive capacity

A related concept to the problemistic search used in the knowledge flow literature is the absorptive capacity of an MNC HQ. Cohen and Levinthal (1990: 128) define absorptive capacity as *"the ability to recognize the value of new external information, assimilate it, and apply it to commercial ends"*. To generate the absorptive capacity of knowledge flows, Minbaeva et al. (2003) argues that two features need to be observed; employees´ ability and motivation to incorporate the accessible knowledge. Gupta and Govindarajan (2000) argue that the absorptive capacity of a unit (either HQ or subsidiary) depends on the capacity of digesting the inflows of knowledge into the department. However, the definition of Gupta and Govindarajan (2000) fails to account for the willingness of the receiving unit to soak up the knowledge transferred in addition to the capacity to do so. Therefore, this study defines absorptive capacity according to the Cohen and Levinthal (1990) and Minbaeva et al. (2003) definitions, meaning that it is the employees´ ability and motivation to evaluate, assimilate, and apply incoming knowledge flows at an MNC HQ. The motivation to absorb knowledge is the part that acts as a similar incentive as problemistic search for creating reverse knowledge flows.

Absorptive capacity is an essential prerequisite for reverse knowledge flows to occur, which could be used to gain insights to identify and translate external knowledge by looking at the volume of beneficial inflows of knowledge (Kostopoulos, Papalexandris, Papachroni & Ioannou, 2011). There is a positive relation between HQ´s previous experiences of gaining knowledge from subsidiaries and searching for new knowledge at the same subsidiary, which encourages HQ´s willingness to absorb more knowledge from the subsidiary (Ambos et al.,

2006). If the HQ does not receive benefits from the knowledge flows from subsidiaries, then there is a mistrust in the upcoming knowledge flow from the same subsidiary (Ambos et al., 2006).

2.4 Factors affecting vertical reverse knowledge flows

As previously alluded to, multiple factors affect the strength of reverse knowledge flows. While drivers of reverse knowledge flows cause them to take place, factors change the efficacy of the reverse knowledge flows when they happen in some way. The reverse knowledge flow factors that were found and analyzed were: institutional profile, language differences, spatial distance, autonomy, formal communication channels, and expatriates.

2.4.1 Institutional profile

The institutional profile of a subsidiary is defined as *"the issue-specific set of regulatory, cognitive, and normative institutions in a given country"* (Kostova & Roth, 2002: 217). In other words, the institutional profile is shaped by the beliefs of the country that the subsidiary operates in. The regulatory element means the concrete laws and regulations of the country that shape how employees act (Kostova & Roth, 2002). This is enforced through coercion if the laws are broken, and can be exemplified by trade regulations and labor laws. The cognitive element refers to a country's common viewpoints and categorization of reality, which is considered taken for granted since it is embedded in the social fabric (Kostova & Roth, 2002; Scott, 1995). Enforcement is done through imitation of others and can be exemplified by how people in a country perceive time or hierarchy. The normative element forms the norms and beliefs of the nationality and is regarded as a social obligation to peers (Kostova & Roth, 2002). This is enforced through expectations of people on each other in a country, with examples such as how much one is expected to voice their opinion or gender roles. In terms of reverse knowledge flows, the institutional profile changes how the subsidiary relates to its HQ, and thus how knowledge flows take place. All three parts of the institutional profile have the potential to affect the strength of the reverse knowledge flow.

For knowledge flows from emerging market subsidiaries, the institutional profile factor plays an important role since the emerging market likely has fundamentally different regulatory, cognitive, and normative elements than the non-emerging market HQ. For example with regulations, the formal institutional environment in emerging markets may differ significantly

from the MNC's home country (Peng, Wang & Jiang, 2008). This sets different expectations of knowledge flows on topics such as proprietary knowledge and may subsequently cause lower quality knowledge flows to take place. Considering emerging markets, local management also tends to be ingrained in the local environment and thus is unable to relate as much to the norms and social fabric of the HQ country (Zhao, Park, & Zhou, 2014).

2.4.2 Language differences

Language differences are defined as the different languages spoken between the subsidiary and the HQ in the MNC, variation in language level proficiency, and dialect differences (Welch & Welch, 2008). While some research places language as a component of the wider culture factor in subsidiary research (e.g. Galli Geleilate, Andrews & Fainshmidt, 2020), language has been proposed by others to be separated from the 'culture box' to more easily analyze its influence on knowledge flows (Welch & Welch, 2008). This study also chooses to follow this line of reasoning for reverse knowledge flows.

Language plays an important role in MNC knowledge flows. It has been found that language acts as a reconfigurator of the entire knowledge flow process (Welch & Welch, 2008). Language differences have the potential to cause friction when attempting to share knowledge from the subsidiary to HQ (Peltokorpi & Yamao, 2017). These differences appear not solely within a country context, but also on an individual level and an organizational level (Gaur et al., 2019). On an individual level, this may manifest in the form of misunderstandings or alienation between units (Hoenen & Kostova, 2015). On an organizational level, language differences between HQ and a subsidiary may create costs. The translation of codified documentation used for explicit knowledge flow is a language-induced cost of time and resources when the subsidiary speaks a different language than its HQ (Welch & Welch, 2008).

Even when the MNC operates with the same business language worldwide, there are still other language differences found that impact reverse knowledge flows. The standardization of a business language does not eliminate the translation cost and barriers associated with language differences (Welch & Welch, 2008). Rather, the HQ delegates the costs downward to the subsidiaries with local language differences. Documents from HQ need to be translated to local languages, presentations need to be edited for adaptation to the local-language speakers that lack proficiency in the common business language.

Even when the MNC speaks the same tongue, the language levels at which employees speak are different. Language competence is vital for meetings, workshops, and other inter-unit interactions that may produce knowledge flows. These flows are substantially mitigated if there is a major discrepancy in language fluency, which is often the case in MNCs (Barner-Rasmussen & Aarnio, 2011; Welch & Welch, 2008). Furthermore, there is a link between language proficiency and barriers to the flow of knowledge since there is room for misunderstandings (Barner-Rasmussen & Aarnio, 2011; Peltokorpi, 2015). Therefore, differences in language proficiency create difficulties in reverse knowledge flows, and similarities in language proficiency breed benefit for reverse knowledge flows.

2.4.3 Spatial distance

Spatial distance is defined as the physical geographical distance between the subsidiary location and its HQ. Due to the different locations of the subsidiary and HQ, face-to-face interaction is far from the sole way to conduct knowledge flows. In the digitized modern business world, digital communication tools are utilized when not being able to travel between the HQ and its subsidiaries. This has created a gap in the knowledge flow restrictions of meeting face-to-face and sitting at home in a non-working environment (Caligiuri, De Cieri, Minbaeva, Verbeke & Zimmermann, 2020).

There are both opportunities and challenges to develop and manage foreign subsidiaries in unfamiliar countries that are located in countries far away from the origin of HQ (Dikova, 2009). One opportunity is to develop a greater understanding of the environment in the specific location. Some argue that distance affects an MNC's knowledge flows negatively when having subsidiaries abroad in distant countries (e.g. Nordström & Vahlne, 1994). In contrast, other research has found that physical distance does not need to be correlated to a lack of knowledge flows, and HQ having preexisting knowledge of the foreign market has a higher correlation to knowledge flows than geographical distance (Dikova, 2009). As foreign subsidiaries have the opportunity to adapt to the local market and synchronously act within the global MNC (Dikova, 2009), the role of spatial distance for reverse knowledge flows is unclear.

Time zone differences is another potential disruptive force for reverse knowledge flows. By being located in diverse time zones, day-to-day communication decreases, and managing

rapid issues that occur on a global scale tends to be more difficult to solve (Bahar, 2020). The different units need to be more engaged in other modes of knowledge flows than face-to-face or virtual meetings due to time differences since not everyone can participate during these meetings. This implies that misunderstandings of emails and interactions could occur (Haas & Cummings, 2015).

The location divergence is also considered to be linked with communication costs, which affect the intensity of coordinating knowledge flows (Baaij & Slangen, 2013; Haas & Cummings, 2015). Employees are more willing to share knowledge within the region they are located in compared to employees located with substantial geographical distances (Cuypers, Ertug, Cantwell, Zaheer & Kilduff, 2020). On the other hand, some research found that spatial distance does not affect reverse knowledge flows as the knowledge flows only is knowledge merely being transferred back to HQ, not depending on whether it is located near the HQ or not (von Zedtwitz, et al., 2015). This research focused on innovation over time in global companies, which creates specific knowledge flows, and not the day-to-day knowledge flows.

2.4.4 Autonomy

Subsidiary autonomy is defined as the subsidiary's liberty to make independent decision-making and implementation (Glaister, Husan & Buckley, 2003). When autonomy is low, the subsidiary tends to be an implementer of HQ's decisions (Rugman, Verbeke & Yuan, 2011). On the other end, when autonomy is high, the subsidiary is run as an independent firm within the MNC as a whole (Rugman et al., 2011). Two opposing forces regarding subsidiary autonomy are found within an MNC; subsidiaries strive for a high level of autonomy to have the ability to adapt regionally, while the HQ wants to keep decision-making centralized to be able to exercise control (Paterson & Brock, 2002).

Regarding the effect of high subsidiary autonomy on reverse knowledge flows, there is generally a positive relationship shown between them (Oh & Anchor, 2017). The autonomy of a subsidiary helps shape the relationship and rapport between HQ and subsidiary, which thereby affects the way that knowledge flows occur. With a low autonomy and top-down control of the MNC, it becomes more difficult for the subsidiary to be able to teach the HQ its localized knowledge (Oh & Anchor, 2017). In a sense, when autonomy is low the HQ does not trust that the subsidiary can make better decisions than themselves, which is an important

mentality to have to enable creation of reverse knowledge flows. This is supported by research of knowledge sharing on an individual employee level, which shows that their intrinsic motivation to share knowledge improves with higher autonomy (Foss, Minbaeva, Pedersen & Reinholt, 2009). Furthermore, in contexts where success depends on managing knowledge from other organizational units, it is important to grant employees enough autonomy to be motivated to share their knowledge (Foss et al., 2009). This is highly applicable to the subsidiary in a global MNCs that is dependent on its knowledge network.

With the generally positive trend of high autonomy in mind, there also seems to be mixed effects of high subsidiary autonomy on reverse knowledge flows, depending on what type of autonomy is given and to whom in the subsidiary. The type of autonomy given has different effects on reverse knowledge flows, contingent on whether it is operational autonomy or strategic autonomy (Søberg & Wæhrens, 2020). Operational autonomy is the ability of the subsidiary to handle its own routine operative activities without outside management, while strategic autonomy is when the subsidiary has the mandate to set its own strategies (Søberg & Wæhrens, 2020). With a high operational autonomy, the subsidiary contributes to a positive reverse knowledge flow but a negative forward knowledge flow, but with high strategic autonomy, both the reverse and forward flows are negatively affected (Søberg & Wæhrens, 2020). Additionally, different local requirements inform the level of autonomy as well, meaning that the optimal autonomy for two separate subsidiaries may differ significantly. One aspect of this is that the optimal amount of autonomy depends on HQ's desired outcome of the subsidiary (Rašković et al., 2013; Baaij & Slangen, 2013; Rabbiosi & Santangelo, 2019). For instance, production facilities in emerging markets tend to have a lower degree of autonomy due to the outcome of producing goods developed by HQ, while R&D subsidiaries often have more autonomy (Rabbiosi & Santangelo, 2019; Rašković et al., 2013; Geppert et al., 2003).

Subsidiaries often have unique resources and knowledge that is absent in HQ (Paterson & Brock, 2002). This implies that subsidiaries need to be self-sufficient – acting autonomously – and is an aspect HQ needs to consider when communicating and interacting with its subsidiaries (Paterson & Brock, 2002). However, granting a subsidiary a high level of autonomy is not fitted for all, they need to be in the right environment and trustworthy to the HQ (Galli Geleilate et al., 2020). Solely when subsidiaries are present in the right

environment and have the accurate expertise, high autonomy helps the quality of reverse knowledge flows.

2.4.5 Formal communication channels

Formal communication channels are defined as structured methods to transfer explicit knowledge within an MNC. These channels may include task forces, permanent interunit committees, and documented reports of codified knowledge (Gupta & Govindarajan, 2000; Jonsson & Foss, 2011). Explicit knowledge is often stored in written down repositories of knowledge such as reports, database files, and standard operating procedures (Levitt & March, 1988), which may be used to share knowledge with HQ.

For reverse knowledge flows, the use of formal communication channels is a factor that tends to have a positive effect on explicit knowledge flows (Gupta & Govindarajan, 2000). Moreover, with increased utilization of formal communication channels from a subsidiary, the more effective the reverse knowledge flows will be (Gupta & Govindarajan, 2000). This is owing to the fact that when the subsidiary is heavily integrated into the MNC network, the communication between the subsidiary and its HQ is denser.

With the beneficial nature of formal communication channels in mind, some challenges come from using them to share explicit knowledge. Coded and explicit knowledge demands a large financial and time investment from management to operate (Belderbos, Du & Goerzen, 2017). Another pitfall of a subsidiary using formal communications extensively is that heavy integration with the MNC works against the subsidiary's ties to the host country market and local context (Meyer, Mudambi & Narula, 2011). This scale of being internally integrated with the MNC network versus being externally integrated with the domestic environment gets tipped when the subsidiary has substantial formal communication ties to the HQ regularly. This may decrease the uniqueness of knowledge that the subsidiary obtains since it becomes more homogenous with its HQ (Meyer, et al., 2011).

2.4.6 Expatriates

Expatriate is defined as an MNC employee in a strategic position that temporarily transfers to another business unit in a foreign country, either from HQ to a foreign subsidiary or vice versa. After a period of time in the foreign unit, the expatriate is repatriated to the home country and disseminates the tacit knowledge gained from the exchange.

Expatriates as facilitators of reverse knowledge flows is a phenomenon that has been explored by some research in the subsidiary literature (Meyer et al., 2020). Especially concerning the role of individuals, expatriates are brought up as a factor that is intrinsically linked to subsidiary knowledge creation and sharing (Meyer et al., 2020; Gaur et al., 2019). They act as boundary spanners: individuals that fulfill the role of links in the internal MNC network and absorb knowledge from the foreign subsidiary (Au & Fukuda, 2002). This is achieved through gaining local experience and creating networks in the host country.

Expatriates are known to have a positive effect on reverse knowledge flows (Cuypers et al., 2020; Cheong, Sandhu, Edwards & Poon, 2019; Meyer et al., 2020). By bridging the knowledge gap between subsidiary and HQ, expatriates aid in exchanging information and disperse local knowledge to the global scale (Harzing, 2001). Additionally, there are difficulties in leveraging expatriates effectively, either by HQ not communicating enough with the expatriates while they are on their assignment or failing to make use of the tacit knowledge the expatriates gained when they repatriate (Black & Gregersen, 1999). Nonetheless, if the initiative is managed well, using expatriates has several upsides for vertical reverse knowledge flows as they become a part of the informal communication channels.

In the emerging market context, expatriates have been found as tools to facilitate knowledge flows between an emerging market subsidiary the MNC HQ (Engelhard & Nägele, 2003; Andersson, Björkman, & Forsgren, 2005). A reason for the facilitative nature of expatriates helping reverse knowledge flows from emerging markets is the uniqueness of the local office knowledge. Sharing knowledge can be precious when it is from people who are dissimilar to oneself (Ertug, Gargiulo, Galunic, & Zou, 2018). The emerging market business environment is fundamentally different from the traditionally industrial high-income market that MNCs often have more experience with (London & Hart, 2004). This motivates the need to use expatriates as boundary spanners that harness the relevant knowledge found in the emerging market subsidiary.

2.5 Theoretical framework summary

The theoretical framework is centered around the reverse flow of knowledge between emerging market subsidiaries and their HQs. As a starting point to illustrate this framework, reverse knowledge flow starts at the emerging market subsidiary – the source of the localized knowledge – and is directed to the MNC HQ (Ambos et al., 2006). Drivers create reverse knowledge flows, while factors change the strength of reverse knowledge flows.

The identified drivers of reverse knowledge flows are HQ problemistic search, HQ absorptive capacity. These represent some of the most substantial reasons for how reverse knowledge flows take place. HQ problemistic search is defined as the process of the HQ searching in its subsidiaries for a solution to an existing problem in the organization (Jonsson & Foss, 2011). Absorptive capacity is defined as the employee's ability and motivation to evaluate, assimilate, and apply incoming knowledge flows at the HQ (Cohen & Levinthal, 1990; Minbaeva et al., 2003).

The identified factors affecting reverse knowledge flows are institutional profile, language differences, spatial distance, autonomy, formal communication channels, and expatriates. The institutional profile is the subsidiary country's bundle of regulatory, cognitive, and normative institutions (Kostova & Roth, 2002; Scott, 1995). Language differences are defined as the HQ-subsidiary differences in the language spoken, language proficiency, and dialects (Welch & Welch, 2008). Spatial distance means the geographic distance between the subsidiary and its HQ. Autonomy refers to the amount of self-governance present in the subsidiary (Glaister, Husan & Buckley, 2003). Formal communication channels are defined as structured procedures to transfer explicit knowledge, some of which are task forces, permanent committees, and documents (Gupta & Govindarajan, 2000; Jonsson & Foss, 2011). Expatriates are defined as management employees that are temporarily moved to a foreign business unit, from the HQ to a subsidiary or vice versa.

In sum, this literature review has shown that various important drivers and factors affect how reverse knowledge flows from emerging market subsidiaries. In Table 1, a summary of the theorized roles of each aspect has been highlighted, along with key authors.

Name	Type of concept	Theorized relevance for reverse knowledge flows	Key authors
Problemistic search	Driver	HQ actively forages for knowledge from the subsidiaries that are useful to its current challenges. The receiver initiates the reverse knowledge flows.	Hu et al. (2021); Monteiro et al. (2008)
Absorptive capacity	Driver	Employees´ at the HQs ability and motivation to incorporate the accessible knowledge from its subsidiaries affects whether reverse knowledge flows occurs.	Ambos et al. (2006); Minbaeva et al. (2003)
Institutional profile	Factor	Regulatory, cognitive, and normative factors within the subsidiary´s country changes how well the subsidiary gives reverse knowledge flows.	Kostova & Roth (2002); Scott (1995)
Language differences	Factor	Acting as reconfigurator of reverse knowledge flows with potential to cause misunderstandings if not using the same language.	Peltokorpi & Yamao (2017); Welch & Welch (2008)
Spatial distance	Factor	Geographical distance makes reverse knowledge flows more difficult since there are associated costs and time differences.	Baaij & Slangen (2013)
Autonomy	Factor	Higher subsidiary autonomy leads to higher reverse knowledge flows, but depends on if it is operational or strategic autonomy.	Oh & Anchor (2017); Foss et al. (2009); (Søberg & Wæhrens, 2020)
Formal communication channels	Factor	Enriched utilization of these channels increases the effectiveness of reverse knowledge flows.	Gupta & Govindarajan (2000)
Expatriates	Factor	The employee gains insights of the foreign country, which affects reverse knowledge flows positively.	Meyer et al. (2020)

Table 1. List of theoretical drivers and factors affecting reverse knowledge flows from a subsidiary view. (Sources: Compiled by authors)

This study's theoretical framework is presented in Figure 1 and shows how the interpreted process of reverse knowledge flows works after gathering and analyzing previous research. The emerging market subsidiary is the source of knowledge and creates flows down to the HQ. On the way down to HQ, the drivers in this study, HQs problemistic search, and HQs absorptive capacity could affect if – and how well – the knowledge is being transferred. To showcase the difference between drivers and factors, the hexagons representing drivers are side-by-side the arrow that shows the reverse knowledge flow from the emerging market subsidiary to its HQ. On the other hand, the arrow down to HQ goes through the box of factors that are assumed to affect reverse knowledge flows from the subsidiary directly. The factors: institutional profile, language differences, spatial distance, autonomy, formal communication channels, and expatriates are considered to be self-standing factors that all could unfold reverse knowledge flows from an emerging market subsidiary. Hence, for the sake of simplicity, all the factors were gathered in one equal box, not meaning that they occur at the same time.

The self-constructed theoretical framework below is later used as a tool for the analysis of this study.

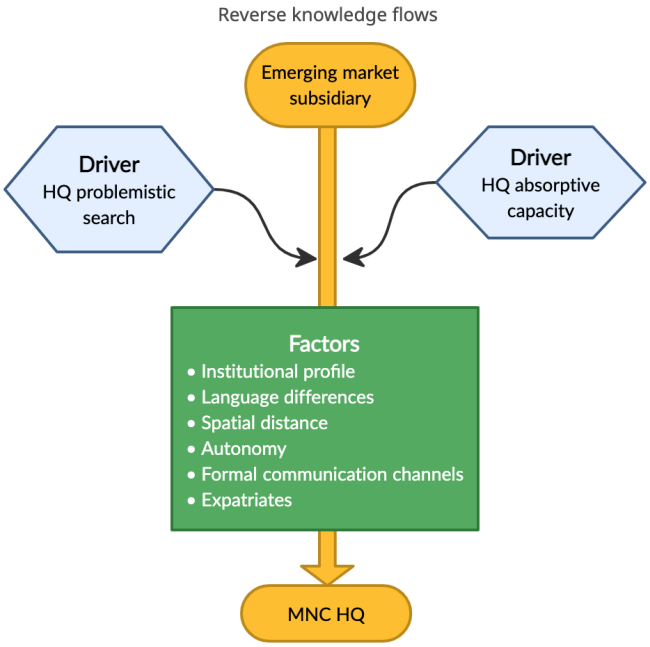

Figure 1. Theoretical framework: The reverse knowledge flow process from an emerging market subsidiary (Compiled by authors).

3 Methodology

In the methodology chapter, the research approach, design, and choice of method is described. Also, what types of primary and secondary data have been used, and the interview guide and how the interviews were conducted are presented. Finally, we conclude with ethical research considerations.

3.1 Qualitative approach

A qualitative study is an interpretive research view that focuses on observing an environment without the experimenter trying to affect it (Bell, Bryman & Harley, 2019: 356). Because the research topic necessitates an increased understanding of how reverse knowledge flows work and what affects them, we chose to conduct a qualitative study. To develop an understanding of the factors that affect reverse knowledge flows from a subsidiary, a qualitative study is to prefered since spoken words, feelings, and overall decisions were analyzed throughout this study (Bell et al., 2019: 436).

3.2 Research approach

3.2.1 Abductive approach

There are three main method approaches one could use when doing research (Bell et al., 2019: 24). The approaches are abductive, inductive, and deductive. The abductive approach is a type of interpretive method in which a dialogue takes place back-and-forth between the theoretical perspective and the empirical findings, and subsequently the best explanation is selected from different interpretations of data (Bell et al., 2019: 24). Thus, the abductive approach is a combination of the deductive approach – to test hypotheses from theoretical considerations – and the inductive approach – to develop the theory from the empirical findings (Bell et al., 2019: 24). This method suited the purpose of the study of increasing the understanding of how reverse knowledge flows work and what affects them, since there were pre-existing theories on reverse knowledge flows but there was a need to find more empirical data on the subsidiary perspective. With the abductive approach, both theory and the empirical findings could be compared and influence each other to reach an answer to the research question.

3.2.2 Research process

At the beginning of the study, previous research was gathered and analyzed to gain knowledge about the topic and find the research gap. The initial theoretical framework of drivers and some factors were formed at this point of the study. After finding support in previous research, it became relevant for the research to initially focus on the drivers *problemistic search* and *absorptive capacity*, as well as the factors *language differences, spatial distance, autonomy, formal communication channels,* and *expatriates*. After a majority of the theoretical chapter was written, we went to companies to gain insights from the business world. Throughout the interview process, we gained new insights into what the companies found important to share considering reverse knowledge flows. Through the new insights, we chose to add a factor affecting reverse knowledge flows called *institutional profile* to reflect the greater understanding of the found features. This way, the research process was abductive in that we alternated between theory and empirics.

In the last part of the process, an analysis of the empirical data was written by contrasting the findings with the theoretical framework. Finally, a conclusion with theoretical contributions, managerial implications, limitations, and future research was made.

3.3 Data collection

To be able to evaluate the data and retrieve insights from it, the research methodology is the key to success (Bell et al., 2019: 11). With that being said, the data collection method needed to be appropriate to the research of this study. In this study, both primary and secondary data were analyzed.

3.3.1 Multiple case study

To collect data in a qualitative procedure, a multiple case study was conducted, which was used to provide new insights into an existing field (Bryman et al., 2019: 438). Previous case studies have often had the inductive or deductive approach, hence there is an urge to develop more abductive case studies (Welch, Piekarri, Plakoyiannaki & Paavilainen-Mäntymäki, 2022). A multiple case study focuses on objects such as corporations, locations, or events. Because of the depth that is inherent in case study research design, its strength is that it provides a rich understanding of the phenomenon. For the same reason, the purpose of a case study is not to provide generalizable results. This went in line with our research question,

which was more interested in investigating the phenomenon of how reverse knowledge flows unfold and what affects them rather than obtaining a result for generalization. Hence, abductive case studies provide a plausible explanation, enabling the research to compare and contrast previous research findings and empirical results (Welch et al., 2022). In addition, a multiple case study allows a higher level of comparison compared to a single case study which only considers one unit, or one function within a context (Yin, 2014: 55). In the context of the purpose of this study, the varied perspectives gave comparative views of increasing the understanding of how reverse knowledge flows work and what affects them. Accordingly, by using and collecting several in-depth interviews in a variety of industries, we were able to understand the differences and similarities between these industries and firms (Yin, 2014 p. 59).

3.3.2 Case selection

To examine case companies that were relevant to the purpose of the study, we chose companies based on certain criteria. The case selection criteria were based on the research question: they were limited to MNC subsidiaries that were majority-owned by the parent company, with the subsidiary being located in an Asian emerging market, while the HQ is located in a non-Asian country. The case companies were sampled according to non-probability sampling, as the interviewees have sought to attain the criteria concerning working at a subsidiary in Asian emerging markets and having contact with HQ in non-Asian countries to enable the purpose of this study. The non-probability sampling process is more subjective than randomizing the interviewees and could affect the bias of this study (Bell et al., 2019: 196). However, the chosen interviewees were highly knowledgeable and experienced with the topic. Hence, the interviewees could bring diverse perspectives into the study.

To find suitable companies and persons to collaborate with, we sent out 57 messages through LinkedIn to country/area managers at medium and large-size companies who have subsidiaries in Asian emerging markets and HQ in any mature European countries. Further, we reached out to private contacts, consisting of friends and families and their business networks. Due to time constraints, many companies were not able to collaborate. After the first contact, initial interviews with the companies Ericsson and Mölnlycke Healthcare were conducted. This was to elaborate on the research and to find a suitable topic for the collaborations. We did not reach a common solution on this especially due to time

constraints. Geodis was the third company we had an initial meeting with, who agreed upon collaborating as a single case company to gather all empirical data from their Asia-Pacific offices.

After four interviews at Geodis, due to time constraints and limited resources, our interview access became limited. There was a need to find more companies and employees to interview, which shifted this study from a single case study to a multiple case study. Emails were sent to a variety of Nordic and Swedish chambers within the Asia-Pacific region that could help us to get connections to Nordic firms having subsidiaries in the area. Lastly, we talked to employees at MNCs at the career fair GADDEN at the School of Business, Economics, and Law in Gothenburg to receive connections within their organizations in Asia-Pacific who have some communication with HQ. The companies that were contacted agreed upon one or two interviews at each firm, all of them except one at subsidiaries in Asia-Pacific. In the end, we gathered nine MNCs with ten subsidiaries in total. These were: Geodis, Stena Group [Austen Maritime – henceforth called Austen, and Envac], Ericsson, InterEast, Assa Abloy [Assa Abloy Entrance Systems], Gunnebo, Atlas Copco, Höganäs, and an anonymous Swedish vehicle company.

We focused our research on the Asian emerging market region as it went in line with the focus of emerging markets. The two case company countries that did not fit as neatly into the classification of emerging markets were South Korea and Singapore. While South Korea has a strong and highly technological economy, it still has the classification as an emerging market by the MSCI index (Yoon, 2022). In comparison, Singapore is generally considered a mature economy and separated from the emerging markets in Southeast Asia (Leow, 2022). However, the case company with its subsidiary in Singapore was still included in the scope of the study because the subsidiary has its own offices in several of the East Asian countries that are considered emerging, such as Malaysia, Thailand, and Cambodia.

To contrast the focus on Asia, we interviewed the company InterEast to understand European emerging market subsidiaries as a complement to the Asian region. The variety of interviewees in our study to interview has been chosen to give a broader perspective on our research and it makes it possible to gather details from different perspectives.

3.3.1 Primary data

To answer the research question, primary data was collected. This study's primary data was assembled through interviews made at a variety of subsidiaries in MNCs to analyze already existing research and to fill the existing gap in academic research. Following this section, motivations for the collected primary data and the choice of MNC and interviewees are described.

3.3.1.1 Interview method

The primary data collection method we have employed was qualitative interviewing with employees at the chosen case companies. The most prominent benefit of using interviews as a collection method is that it offers flexibility for us as researchers and the research subjects (Bell et al., 2019: 434). Compared to other qualitative research methods, such as shadowing a participant, interviews are much less time-intensive and give more insight in a compressed amount of time. Furthermore, the interview is one of the most practical approaches to apply in case studies with limited durations, such as this one (Yin, 2014: 110).

During semi-structured interviews, it is important to develop a relationship with the interviewees such that he or she gets a friendly attachment to the interviewers. In addition, *why* and *how* elaboration questions were asked to develop deeper evidence for the research (Yin, 2014: 110). The importance of the structure throughout the interviews in this study was to limit the time of each, meaning that the interviews are conversational and at the same time narrowed to the interview guide. In the absence of structure, the interviews could be too broad for our research, and open-ended interviews might diminish and limit the access to exact information (Yin, 2014: 111).

As our study uses a semi-structured interview approach, we created an interview guide to use throughout the interview process. This interview guide can be found in Appendix 1. Hence, we were not kept solely asking these questions, but also able to move away from the set of questions if the interviewees already have answered a particular question or if we wanted to increase the discussions with other questions to the interviewee. We had several themes to gather deeper information regarding the drivers and factors that affect reverse knowledge flows as this study's sub-research questions were to analyze these.

A majority of the interviewees did not require to receive the interview guide beforehand, two of the interview sessions (Assa Abloy and the panel interview with Atlas Copco) were handed the interview guide previous to the interview due to the desire to get an understanding of the topic and enable them to prepare. However, we retained the right to ask follow-up questions and deviate from the interview guide.

3.3.1.2 Interview process

Elaborating on our specific interviewees; background, culture, expertise language, location, and previous experiences differed for a majority of them. This was an important criterion for this study as the research topic is firmly rooted in an international context with a diverse workforce. Thus, all the interviewees except the person at InterEast were located in the Asia-Pacific region.

For the rest of the interviews, we had email conversations with the interviewee and agreed upon a meeting for an online interview. All of the interviews were conducted using Microsoft Teams, and we (the researchers) sat side by side, with one computer in the meeting and another with the interview guide. Furthermore, before the interviews, we utilized our phones to record the meetings in order to include permission for recordings in the transcription. We would instantly stop the recording and delete it if the responders objected to being recorded. Hence, all interviewees agreed on recording the interviews.

The setup of the interviews was made to be as professional as possible, with a neutral video background, the interviews were conducted in isolated group rooms to remove environmental distractions and ensure that there was a stable internet connection. All interviews were conducted with one interviewee except the interview with Atlas Copco, where two participants were present. This gave the interview with Atlas Copco an increased intensity and enabled the interview to gain a broader perspective from two different departments at the subsidiary. Additionally, due to time constraints at the company, we were not able to have two individual interviews with the interviewees.

The interviews were conducted through Microsoft Teams due to the location differences between us and the people in Asia. All of the interviews were set up with audio and web cameras to gather as much information on body language and facial expressions as possible when interviewees answered questions. This also enabled us to get a friendly connection with the interviewees. During the interviews, there were no unique impediments because all

participants were used to communicating using virtual tools. One could argue that body language indicators would have been easier to tell in a face-to-face interview setting, but this was mitigated by all interviews being on video. Both of us were sitting in the same room with one computer´s web camera and microphone, meaning we sat together so that the interviewee felt a connection to both of us. We then individually asked questions stated in the interview guide and follow-up questions. We did this due to the validity and reliability of not only having one interviewer handing out all questions. This increased the interview quality, and the interviewees felt more connected with both of us.

All the interviews were approximately 60 minutes. Table 2 below shows the interviewees in the order we conducted the interviews, the name of the MNC they work for, their role in the organization, where they were located, and how many years they worked at the MNC.

Name	Company	Position	Located	Years at the company
Anonymous	Geodis	(Regional) Customs Brokerage Director APAC	Singapore	2
Anne Tan	Geodis	(Regional) HR Director APAC	Singapore	3.5
Florence Lee	Geodis	(Regional) Sales and Marketing Director	Singapore	3
Esther Cheong	Geodis	(Regional) Internal Controls Director APAC	Singapore	3
Philip Eriksson	Austen Maritime (Stena Group subsidiary)	Global Head	Singapore	10
Fredrik Lauritsen	Envac (Stena Group subsidiary)	Managing Director	Singapore	19
Lewis Kuo	Ericsson	Head of People Digital Services, NE Asia	Beijing	7
Chris Huang	Ericsson	Head of Talent Management, NE Asia	Beijing	>2

Marcus Fagerlund	InterEast	Head of Operations	Gothenburg/ Poland/ Romania/ Turkey	1
Hans Khil	Assa Abloy Entrance Systems (subsidiary to Assa Abloy)	Managing Director	Bucheon, South Korea	4
Anonymous	European vehicle company	Managing Director Asian subsidiary	Asia (anonymous)	8
Anonymous	Gunnebo	HR Manager	Asia (anonymous)	3
Anonymous 1 & Anonymous 2	Atlas Copco	Communications Specialist & Finance Specialist	Taiwan	1 & >2
Anonymous	Höganäs	Country Manager	Taiwan	20

Table 2. Study's interviewees (Compiled by authors).

3.3.2 Secondary data

Secondary data is information that has been evaluated by others to provide insights into specific issues or knowledge and can be found in for instance articles, books, annual reports, and websites (Bell et al., 2019: 12). This allows for triangulation of data, in which the primary interview data gets compared to the secondary sources to obtain richer empirical findings. The annual reports were mined for facts regarding the companies and any tidbits relevant to the MNC's knowledge management.

An advantage of utilizing annual reports for secondary data is that they are produced by the companies themselves, making the information close to the source. However, a disadvantage of using annual reports as a source is that one of their main purposes is to present the company in a positive light to its stakeholders, which creates a bias. To reduce this bias, the majority of the empirical data was based on primary data interviews with employees who talked about their experiences. Thus, the annual reports were simply viewed as additional context to the topics discussed in the interviews.

One negative aspect of the interviewed MNCs was that multiple case companies were not public companies, meaning that their annual reports did not broadcast as much information as

the listed MNCs such as Ericsson and Assa Abloy. This meant that the empirical data from the unlisted companies were wholly based on the primary data interviews.

3.4 Data analysis

After each interview had been conducted, the recordings were put into Microsoft Office365's Word transcription software. Thereafter, the text was read through as the recording was listened to and corrections were made in the transcription. When the transcription was finished, it was directly put into the qualitative analysis software *Nvivo* where it was coded thematically (see Appendix 2) to each of the drivers and factors this study has investigated (Bell et al., 2019: 246). This enabled us to directly see all parts and sentences that could be used in the results. Also, thematic analysis is appropriate for case study research because it allows for the interpretation of data without losing their context (Bell et al., 2019: 519). All the coding was done by one of the researchers, which could have affected the study´s bias. Hence, when the coding of an interview was done, the other person read it through and approved it, and mentioned if he thought that some quotes were missing or should be in another driver or factor. Since a single researcher initially coded the thematic interviews, it made it easier to find repetitions and typologies of expressions, linguistic connections, and similarities contra differences between the interviews (Bell el al., 2019: 519).

The results chapter was conducted through the coded information provided from the interviews with strengthened information from the companies' latest annual reports and website considering knowledge and information about the companies. This enabled triangulation, not solely an interviewee's thoughts, but with the company's viewpoint of the topic. Not all companies mentioned anything that could concern knowledge flows in their report, and then we did not include it in the results.

After the results, an analysis chapter was compiled which combined and critically discussed this study´s empirics with already existing research which was written in the theoretical framework chapter. Each of the drivers and factors was analyzed separately to gain a deeper understanding and enabled the critical discussion of every driver and factor.

3.4.1 Theoretical research analysis

After forming initial drivers and factors, we used the abductive method to realize which factors were relevant and utilized those in the end. As the interviews were conducted, the data shaped a redesign of the theoretical framework, incorporating *institutional profile* as a factor to reflect the learnings from the interviewees. While some questions in the interview guide could have led the interviewees to bring up certain factors, we also posed open-ended questions on reverse knowledge flows.

The chosen factors that the thematic coding was based on – institutional profile, language differences, spatial distance, autonomy, formal communication channels, and expatriates – were studied in further detail because they were found relevant to this study's research subject of reverse knowledge flow from emerging market subsidiaries. Institutional profile, language differences, and spatial distance are all instances of factors that are particularly applicable to the phenomenon of reverse knowledge flows between subsidiaries and HQs on different continents since they have different environmental contexts in terms of norms and values, linguistics, and geography. Autonomy was selected as a factor because it relates to the organizational structure of the MNCs, which was distinct from the other factors and could affect the quality of reverse knowledge flows. Finally, formal communication channels and expatriates were picked due to their ability to represent inter-office communication on a more micro-level than the other factors. As mostly explicit knowledge is shared through formal communication channels, we wanted to understand how tacit knowledge is transferred as well. Therefore, expatriates have been used as a factor, as they could be categorized as 'informal communication channels' to provide a clearer connection to formal communication channels. We deemed that there was enough research interest and relevance in the expatriate aspect that it warranted its own factor.

Other factors have been found in previous research to affect reverse knowledge flows, but that were excluded from this study. One major factor that could affect reverse knowledge flows and was excluded in this study was the cultural factor (e.g., Gaur et al., 2019; Kumar, 2013). Culture is a broad feature and is considered to be too vast for this study. While institutional profile also can be considered as a broad factor as it includes some part of the culture, it provides more boundaries as it is divided into three main elements: regulatory, cognitive, and normative. Therefore, it was more logical to involve institutional profile as one

of the factors rather than culture. Additionally, culture would be too close in proximity to the institutional profile to justify its inclusion.

Another factor that was purposefully excluded was relational context, which is the other half of the institutional duality model and means the internal relationship between HQ and its subsidiary (Kostova & Roth, 2002). The reason that relational context was excluded was that it did not become relevant to the same amount as the institutional profile. An aspect that was brought up repeatedly during the empirical data collection was the external country context of the emerging market subsidiaries, which motivated the inclusion of institutional profile in the study. Other factors such as autonomy, formal communication channels, and expatriates already related the empirical data to the relationship between the HQ and its subsidiary in specific ways, making the relational context redundant. However, the institutional profile filled a more distinct role as a factor that could affect how reverse knowledge flows unfold. Thus, the institutional profile was chosen as a factor in this study while the relational context was excluded.

3.5 Trustworthiness

For qualitative studies, some research proposes that measures taken for academic integrity should be evaluated differently than quantitative studies, in which concepts such as internal validity have a more obvious application (Bell et al., 2019: 48). One example of this is to measure qualitative studies based on trustworthiness, a set of criteria that follow a similar line to evaluating quantitative research. Trustworthiness is made out of four criteria: credibility, transferability, dependability, and confirmability (Bell et al., 2019: 48).

Credibility is the ability to describe a congruent description of empirical events (Shenton, 2004). To achieve this criterion, both authors have actively been participating in the study from start to finish. It was especially important during the interview sessions as it reduces bias. We have created a theory-based interview guide that can be used to compare and contrast empirical findings and previous research. Hence, follow-up questions were continuously made throughout the interviews to develop more credible empirical results of the individual interviews and to limit misunderstandings and misconceptions. Further, to restrict possible misunderstandings, citations have been included in the empirical result to develop more specific and non-nuanced results. After the empirical findings were conducted,

the result was sent to each interviewee letting them review the statements used in the study. This allowed them to express potential concerns about our interpretation. To further increase the credibility and to reach triangulation, all companies' most recently available annual reports and websites were studied to develop an understanding of the companies' industries and structures. Furthermore, as the case companies are from a variety of industries and locations, our bias is reduced as the credibility is connected to the seek of finding phenomenons. Lastly, the empirical data of this study could be compared both within the MNCs, for instance with Geodis, and between all nine of the MNCs in this study. By this measure, triangulation was intensified and bias reduced.

The second criteria of trustworthiness is transferability, which means the study´s applicability to other environments (Bell et al., 2019: 365). Transferability in qualitative studies aims to develop a thick description of a phenomenon (Bell et al., 2019), or an analytical generalizability (Yin, 2014), as it creates the possibility to generate similar studies and results. We wished to focus on the thick description, which is to have a detailed account of the case context. This study´s transferability was fulfilled through the means of describing phenomenons, and being transparent with a detailed description of the research process, data sampling, case companies, interviewees, etc. Therefore, analytical generalizability is fulfilled within the scope of this study.

Dependability is the likelihood of being able to create similar studies, with the same process. (Bell et al., 2019: 366). Dependability does occur through the ability of replication (Bell et al., 2019: 46). As described previously in this chapter, the research process and data analysis have been detailed which increases the dependability of this study. In addition, we have transcribed all material from the interviews into a separate file, to use as a complete resource to create the empirical results (Yin, 2014: 124). Further, all interviews were conducted with a interview guide, with the possibility of follow-up questions. The interview guide allows others to use the same material to create similar studies. In addition, the research process has been well documented and described to provide an understanding of the process letting others use similar procedures for developing testing.

Confirmability is the reduction of researcher bias affecting the data set, thus making the study more objective (Bell et al., 2019: 48). Complete objectivity is unimaginable while gathering and analyzing the results (Bell et al., 2019: 365). Hence, the focus of our study is to act in

good manners, and we do not intend to impact the results by personal preferences as it hinders the confirmability of our study. The objectivity has been accounted for throughout the study, as all collected data has been gathered and analyzed without personal values. Bias has been reduced by two researchers participating in every occasion of the interviews (Bell et al., 2019: 278). To further reduce bias, we found empirical findings where interviewees uttered the same remarks as triangulation took place. This in turn created significantly limited space for our opinion in the study. Lastly, to increase objectivity, we participated in four seminars with other master thesis groups where external parties would highlight potential subjective errors.

3.6 Ethical considerations

For the study's integrity, one key concern while conducting research is to do so in an ethical manner (Bryman et al., 2019: 109). Since this study is based on individuals' portrayed experiences in order to examine how reverse knowledge flows unfold, we must respect the interviewee´s privacy and consent. One of the most important aspects of good research practice has been to ensure that the interviewees do not risk being harmed or violated to any extent as a result of their participation (Swedish Research Council, 2017). Therefore, as a codex, we informed each interviewee in advance of the topic and purpose of the study, letting them choose if they wanted their integrity preserved or not (Bell et al., 2019: 130; Swedish Research Council, 2017). We invited the interviewees to be referred to anonymously or if they wanted to be mentioned by their position or name. This way, the investigation does not cause any harm to the interviewees (Bell et al., 2019: 114). Also, since recording devices were used during the interviews, the researchers informed the interviewees that these devices were used and agreed on using them beforehand. All interviewees agreed upon using the recording devices for the purpose of this study, meaning that the recordings are not used in other areas than this particular study. Bell et al. (2019: 123) highlights the importance of preventing deception, where this study overcomes this by only asking relevant questions about the topic and does not move further with sub-questions that are not as relevant for the outcome. After the empirical chapter was written, it was sent out to each interviewee. This enabled them to agree on information where they are included, or if there were any misunderstandings. However, the interviewees are not able to affect our interpretation of their answers from the interviews.

Lastly, we have followed the Swedish Research Council´s (2017) requirements not using any scientific dishonesty. Therefore, references, quotations, and usage of all data have been used properly for the creation of this study considering morality (Swedish Research Council, 2017).

4 Empirical chapter

This study looked at ten different subsidiaries as case companies for data collection. They all operated in a variety of industries but had in common that they had subsidiaries in Asian countries. Additionally, all subsidiaries had some degree of communication and knowledge transfer between their subsidiaries and their HQs in France or Sweden. In Table 3, the companies are listed as well as some key facts about them. After this, the empirical results will be presented according to the drivers and factors of the theoretical framework.

Company name	Industry	MNC HQ location	Subsidiary location	No. of employee	No. of countries	~Total revenue (€)
Geodis	Transport, Logistics, Supply Chain	Paris, France	Singapore	43.200	120	10.9B
Austen Maritime (Stena Group subsidiary)	Ship Agency, Personnel Management	Gothenburg, Sweden	Singapore	15.400 (subsidiary 50)	6	20M
Envac (Stena Group subsidiary)	Waste management	Stockholm, Sweden	Singapore/ Taipei, Taiwan	15.400 (subsidiary 700)	22	x
Ericsson	Information and communication technology	Stockholm, Sweden	Beijing, China/ Taipei, Taiwan	101.000	115	22.4B
InterEast	Logistics, Supply Chain	Gothenburg, Sweden	Poland/ Romania/ Turkey	50	4	>15M
Assa Abloy Entrance Systems (subsidiary to Assa Abloy)	Access Solutions	Stockholm, Sweden	Bucheon, South Korea	51.000 (subsidiary 12.000)	>70	9.2B
European vehicle company (Company X)	Transport Solutions and Trucks	Europe	Asia (anonymous)	>50.000	>100	>10B
Gunnebo	Security	Gothenburg, Sweden	Asia (anonymous)	4.000	37	4.1B
Atlas Copco	Industrial solutions	Stockholm, Sweden	Taipei, Taiwan	43.000	71	11B
Höganäs	Metal Powder Solutions	Höganäs, Sweden	Taipei, Taiwan	2.400	16	833M

Table 3. Case companies (*Compiled by authors)*. (source: Anonymous company, 2022; Assa Abloy, 2022; Atlas Copco, 2022; Austen, 2022; Envac, 2022; Ericsson, 2022; Geodis, 2022; Gunnebo, 2022; Höganäs, 2022; InterEast, 2022)

4.1 Drivers of knowledge flows

4.1.1 HQ problemistic search – HQs created reverse knowledge flows when requesting solutions from subsidiaries

A general theme from the findings was that HQs tended to search for knowledge at its subsidiaries if the HQs found problems in its business which they thought the subsidiary had already been through, or which they were currently undergoing. Reverse knowledge flows were then created as the subsidiary handed over knowledge to its HQ. In some cases, subsidiaries shared knowledge to HQ that HQ did not deem as important until they encountered the same problem themselves. Some subsidiaries mostly shared knowledge with HQ if they perceived that HQ was investigating the same topic. The main reason was that some issues seemed irrelevant to share or that there was a reluctance to report too much. This was brought up by the Internal Controls Director at Geodis among others, such as interviewees at Ericsson and Höganäs.

"I won't be sharing everything, because there will be a lot of irrelevant subjects and of course to a certain extent, we also may be oversharing details." – Internal Controls Director at Geodis

HQ´s role of highlighting what knowledge is missing and reaching out to the subsidiaries to find certain knowledge was highlighted by two companies. The Global Head at Austen described that to transfer performance and market data that is not being shared on a regular basis, HQ needs to call attention to the specific knowledge HQ wants to gain. In a similar fashion, the Managing Director at Company X thought that even if they shared information that was not seen as relevant to the HQ, the HQ would simply communicate to its subsidiary what type of local knowledge is in demand. Then, he would do his best to supply that specific knowledge.

"...my counterparts [HQ], I mean if they need something that is relevant for them and I don't automatically give them that knowledge… Then, of course, they request that and I try to help them get that knowledge that they need" – Managing Director at Company X

In some cases, subsidiaries shared knowledge they thought was relevant for the HQ, but the HQ did not find it valuable at first. For instance, Geodis shared relevant knowledge about a

procurement risks in the local market which they thought the HQ would consider as important. The knowledge was rejected at first. However, after a period of time, the HQ reached out to the subsidiary to gain the specific knowledge they later found important to their business. This aspect was highlighted at three MNCs, who said that HQs generally did not focus much on gaining knowledge on local issues before they actually took place on a strategic level.

Another aspect of what type of knowledge the HQs saw as relevant was that the knowledge provided value immediately. If a strategy or best practice was shared, the timing of when it would be useful was considered by HQ. For instance, early on in the Covid-19 outbreak, the Asia-Pacific subsidiary at Geodis quickly gathered information and created a clear readiness and response plan. Geodis HQ passively received the plan and seemed to have limited awareness of the potential gravity of the situation. A couple of months later when the pandemic restrictions drastically increased, the HQ immediately asked the HR director at the subsidiary to share her readiness and response plan with the whole MNC. In this situation, a knowledge flow did not happen initially because the HQ did not think that the report would be necessary immediately, but as soon as the pandemic response strategy became essential the HQ used the knowledge properly.

"They adopted it because obviously, it's something that they can see that is very practical. That they need it. [...] So, I guess for other initiatives that are less dramatic, then it depends really on whether it hits the spot for them and whether it's also their focus." – HR Director at Geodis

A highlighted advantage of HQ reaching out to find already existing knowledge was that previous solutions at times resurfaced as relevant to problems in other offices. When there was a pre-existing solution to a problem at another subsidiary, HQ needed to gain awareness of that before starting from scratch. The Head of People at Ericsson said that a separate subsidiary from his was undergoing a similar challenge that the Chinese office had already experienced, and that there would be significant savings for HQ to make use of this previous experience residing in his subsidiary.

"I actually see the same challenge happen in the HQ. But they just went through the same process. So it is actually a waste, it's a waste! If China's experience can be shared to HQ,

then they would probably save 50% of the time to develop a good solution. So I have to say this is something we need to continue to improve" – Head of People at Ericsson

4.1.2 HQ absorptive capacity – willingness to listen was seen as an important prerequisite for knowledge sharing

The absorptive capacity of the HQ was portrayed as a necessity by some interviewees for reverse knowledge flows to happen. Four interviewees talked about the absorptive capacity to an in-depth degree, while others discussed it in passing or pertaining to a reverse knowledge flow factor. The main theme found on absorptive capacity from the subsidiary perspective was that there must be a will for interpersonal two-way communication from HQ's side to drive the dissemination of knowledge.

Sometimes, there was a lack of willingness from HQ to receive local knowledge from the subsidiaries, depending on how open the HQ was to accept feedback. At times when the subsidiaries shared knowledge with HQ, the HQ received the knowledge differently depending on whether it was construed as feedback on how to change a process or as criticism. In the end, it often came down to the openness of HQ. The Sales and Marketing Director at Geodis exemplified that in a project she went back to the head office and gave feedback on the customer selection in a new IT system, in which she showed that many customers missed certain information. The HQ reacted with positive surprise that they were not aware of this option because of the HQs birds-eye view of the project. This showed that with openness in two-way communication between subsidiaries and HQ, knowledge flows could take place. The HR Director at Geodis complemented this thinking with the general comment on MNCs that there could be a problem if the HQ were stuck in a top-down mentality. However, she did not say this about Geodis specifically.

The sentiment that HQ's willingness to receive knowledge from below in the organizational structure is vital for knowledge dissemination in the organization. The Head of People at Ericsson argued that to enable knowledge flows, and HQ's ability to absorb knowledge from its subsidiaries, the HQ needs to listen. This was one of the biggest challenges to him to effectively share knowledge from emerging market subsidiaries to HQ.

"...when it comes to regional sharing, headquarters really need to listen. If they don't listen, communication is actually not really functioning, right? Because communication is two-way. Talk, listen, respond." – Head of People at Ericsson

Furthermore, there was often an opportunity to share local knowledge from the Asia region, but HQ would not learn from that per se. The aspect of being willing and able to receive and use the subsidiary´s local knowledge at HQ is something that the MNCs were actively working on improving, for example through discussing their knowledge management in an internal talents program. The Head of Talent Management at Ericsson agreed that a key issue was how to make the global HQ understand what was going on locally in the regions since there were limitations to how much and what you could communicate as a subsidiary.

"What's the biggest barrier? I think the HQ needs to really understand the situation here [Northeast Asia] on some deep level. It is something that could be a barrier for them [HQ] to really understand why we [the Northeast Asia subsidiary] are doing this and how they can support us more effectively." – Head of Talent Management at Ericsson

4.2 Factors affecting knowledge flows

4.2.1 Institutional profile – norms created barriers and synergies for reverse knowledge flows

Regulatory element

The regulatory element of the institutional profile was weakly indicated to possess differences between the Asian subsidiaries and European HQs that negatively affected reverse knowledge flows. This took the form of trade barriers being present to different extents in the different regions, which shaped regulations. However, this was solely explicitly tied to reverse knowledge flows by one interviewee.

For trade regulation, a substantial contrast was painted between Europe and Asia in terms of trade between countries. This in turn created misunderstandings that made reverse knowledge flows more difficult. For instance, the Customs Brokerage Director at Geodis explained that the free-trade nature of the European Union gave some people in Europe a skewed perception that the ease of trade between European countries is how it functions in the rest of the world as well. He said that in the Asian emerging markets, much more documentation is needed to

move shipments between countries than in the EU, to some people's surprise at the European HQ. The Customs Brokerage Director has had to explain to the HQ that the regulatory environment is much more extensive in Asia.

"Some of my colleagues in Europe, they don't quite understand the situation in Asia. They ask me: 'Hey how come things are so complicated?' I say: 'No, this is common. Wait until I share with you some regulations in Cambodia, or in Bangladesh. I think you would be shocked!'" – Customs Brokerage Director, Geodis

These differences in regulations created a gap of understanding between the subsidiary and its HQ that needed to be bridged before a reverse knowledge transfer could happen. In the case of the Customs Brokerage Director, it was said that additional time was often needed to explain the local differences before they could get to share the knowledge gained in the subsidiary. This created inefficient communication between the units, which in turn was perceived to impact the reverse knowledge flows negatively.

Cognitive element

Within the cognitive element of the institutional profile – concerning the general viewpoints of the people in a country that are embedded and imitated by each other – a running theme was the adherence to a hierarchical environment in the subsidiary countries. Many employees at the Asian subsidiaries had an internalized top-down thinking of their role, in which the organizational positions of employees were perceived as socially important. Often, a stark contrast was brought up between the hierarchical cognitive environment and the HQs located in Sweden. For instance, the HR Manager at Gunnebo experienced that their employees would sometimes lack the confidence to share their minds honestly with their supervisors, which contrasted with the perception that employees in European countries were more likely to do so. Further, the Head of Talent Management at Ericsson pointed out that the hierarchical mindset of the Asian culture led to difficulties in sharing knowledge with HQ. He expanded that the solution to this challenge is a mutual understanding of this cognitive difference regarding hierarchy. This was so that both the subsidiary understands the expectation and shared view on the categorization of the global MNC but also that the HQ understands the local context.

"*I think it's a matter of knowing how to make sure that people can understand each other. So for those with an Asian background, let them know that this is a global environment and the expectation that you don't have to be 100% perfect on your thoughts before you speak up. [...] And then we also let the people in HQ or other regions know that they need to be mindful of that as well. Because there are different ways in terms of being respectful, what is the right amount to speak, and how to be assertive while listening to other opinions."* – Head of Talent Management at Ericsson

A connection was made between the hierarchical categorization found in the subsidiary and the cultural family values of an emerging market country. The Global Head at Austen tied the cognitive value of centralization in China to the organizational occurrence of his Chinese employees in general wanting to leave all authority to their manager. Thus, the external cognitive background seemed interrelated to the internal organizational context in his case. The Global Head stressed that he needed to respect this local trend at his subsidiary, but at the same time, he expressed a willingness to find a middle way with at least some Swedish culture from the Group HQ to bridge the gap between them.

Normative element

When it came to the normative element – viewing the norms and values that are seen as important in the social context of the country – indicators were pointing toward both similarities that facilitated reverse knowledge flows and differences that hindered reverse knowledge flows. A normative similarity was found in how the employees treated each other; there was a common belief in politeness. Both the Communication Specialist and Finance Specialist from Atlas Copco highlighted that they felt a likeness with how polite they were at their subsidiary in Taiwan and the HQ in Sweden. They tied this to how well they could communicate and share knowledge to HQ.

A reoccurring difference found in regards to the normative element was the concept of 'losing face' in the Asian subsidiaries. The matter of losing face was described as a case where no one dared to pose questions in a group environment, but in individual conversations, the same employees were much more willing to share their thoughts with their managers. The Customs Brokerage Director at Geodis posited that this is due to the 'uniqueness of this local culture' in Asian organizational environments. This emphasis on respect was once again highlighted by the Managing Director at Envac, but he came from the

perspective of being an expatriate from the HQ in Sweden. The Managing Director brought up that his communication could be seen as too direct at his office in Singapore, and that it could be beneficial to be more roundabout in how to bring up ideas than what is acceptable according to the norm in Sweden.

4.2.2 Language differences – a common business language was important, but monolingualism was not always advantageous

Common business language between subsidiaries and HQ

As a global business language, English was the preferred language at all the studied subsidiaries to share knowledge with HQ effectively. As the MNCs in this study all had corporate HQs in either Sweden or France and subsidiaries in a variety of countries in Asia among other continents, all went in line and organizations had English as their common business language. Hence, the language varied within the subsidiary depending on how many people were working at the office with the same mother tongue. For the companies where different nationalities worked, English was broadly used at the subsidiaries.

With the commonality in mind, there was also a demand to be able to communicate using the local language internally to develop a greater understanding and enable people to communicate business with each other at a deeper level. It was considered important for some to embrace the linguistic diversity of the MNC instead of making the whole organization homogeneous, as people tend to be more willing to speak up if they could use their preferred language instead of the unison English. For instance, the Head of People at Ericsson saw this as an important feature to facilitate reverse knowledge flows within the organization, even though it was not in the common language.

There were some solutions that were seen as helping to bridge the inter-office language gap. For instance, where the local office mostly spoke the local language, the possibility of using professional language translators is commonly used to enable the relevant documents to be soaked up by the HQ as well. Another solution found to solve the business language issue was to send an email after the meetings to the participants in English, making it clear what was discussed and agreed upon during the meeting.

Regional language differences in Asian countries

While there were language differences between the subsidiaries and their HQs, there were also regional differences that needed to be taken into consideration for reverse knowledge flow creation. At the European HQs, some thought that people in countries such as China, Vietnam, Hong Kong, the Philippines, and Singapore were monolinguistic markets. The Managing Director at Envac drew attention to that there were in fact many accents and other languages within the same country, such as in his Singapore office where common languages included Mandarin, Cantonese, and a variety of Filipino and Indian languages. The extra time and resources required to transmit information gathered in a local language to HQ decreased the speed of the reverse knowledge flows, which could make the knowledge outdated. For example, the Customs Brokerage Director shared that they had to do translations of Ukraine war updates to Mandarin, which took days of precious time.

"*The Ukraine war, we had to do it [reports] in Chinese, because we had to send it to the customer in Chinese on some last-minute changes. [If a translation is needed] you have to go through many layers of approval and the moment you get approved, after three days, it may be over, who knows?"* – Customs Brokerage Director at Geodis

The language used in agreements and contracts at the subsidiaries also differed, leading to further translation costs. It was often the logical choice to have this documentation in the local language, since the subsidiaries had closer relationships with local stakeholders. Thus, important documents and agreements were signed in the local language and needed to be translated to English if it became relevant to share this with HQ.

Language level and dialect differences

Another aspect of language differences that were found to affect the sharing of local knowledge was misunderstandings due to language level differences and accents. The language level and accent differences between HQ and subsidiaries could act as hindrances to communication during meetings since the conversations required more concentration and energy than what would be the case otherwise. For example, the Sales and Marketing Director at Geodis emphasized that when communicating in English with people at HQ with a heavy French or German accent, getting her point across became much more difficult. She also pointed out that while all employees at Geodis were required to be able to speak English,

there were differences in English proficiency between emerging markets such as Thailand, Vietnam, and South Korea.

With the difficulties from linguistic aspects in mind, some recommendations were reported to increase mutual understanding when sharing knowledge. Measures such as all meeting participants keeping the camera on when doing online meetings with other offices were deemed as important. Body language and facial expressions were seen as crucial to understand each other when words were not sufficient to communicate effectively.

"When you're talking to people and none of them have English as their first language, facial expression is very important in how you say things. If you are close to them [in the same space], you can see by body language what this person actually is talking about. It creates less misunderstandings." – Managing Director at Envac

4.2.3 Spatial distance – digital communication made distance increasingly irrelevant, but time zones created challenges to reverse knowledge flows

Power of digital communication tools

Through the extensive use of digital communication tools, the mitigating effect of spatial distance on reverse knowledge flows was reduced. In the post-digitalized era for MNCs, physical distance was not seen as a barrier to sharing knowledge with HQ due to the abundance of virtual methods of communicating. The vast majority of respondents highlighted the convenience of communicating digitally between their subsidiaries and their HQs, especially after two years of everyone sharpening their digital skills due to the Covid-19 pandemic. During 2020 at Geodis, dialogue that had previously been accomplished through traveling was taken online, which had continued to be prevalent. This was seen as beneficial and made the Singapore subsidiary and France HQ seem closer, even though they were a world apart physically. The Global Head of Austen corroborated that digital communication tools work as a beneficial complementary instrument to physical meetings. The geographical distance between offices was therefore less relevant.

Physical meetings were still beneficial

While digital communication tools helped against the negative effects of spatial distance, some interviewees held the belief that physical meetings still have an important role in the modern MNC. They pointed out that it was still beneficial to meet face-to-face as well since

it gave more opportunities to talk to HQ and observe details that would not have been seen in a digital meeting. For instance, the Managing Director at Höganäs supported physical meetings as a way to share knowledge, while he also acknowledged the power of digital communication.

"I think we have learned a lot to share about Microsoft Teams, but from time to time it is very good to meet face to face. [...] Yes, it would be good if more central functions could travel through the subsidiaries and see how the reality is, and how it works now." – Managing Director at Höganäs.

A problem found associated with physical meetings at far distance were the costs tied to it. To meet physically with the HQ and Asian subsidiaries being located far apart, there are traveling costs and an opportunity cost of time towards event planning that are not needed for digital meetings. One example of the effect of this cost was for the Managing Director at Assa Abloy, who lamented that while he felt the importance of sending his employees to HQ in person to exchange knowledge, the high travel fee due to the distance made him hesitate to do so.

On the other end of the argument for the continuously important role of physical meetings, some interviewees contrasted their opinion. After trying the digital approach due to the pandemic, the Managing Director at Company X found that the lack of physical interaction had less importance for their knowledge flows than he thought it would have at the beginning of the outbreak.

Time zone difference

The time zone difference between offices was seen as a minor challenge for reverse knowledge flows related to spatial distance. This was because the interviewed subsidiaries had at least a six-hour time difference between their office in Asia and the HQs in Europe, which created a barrier to when knowledge-sharing meetings could happen. Nine of the interviewees brought up time zones as an obstacle to communicating effectively and being able to share knowledge with HQ. In one case, the Managing Director at Assa Abloy explained that HQ company events take place during the working day in Sweden, but for him, they are during the late evening or even around midnight. This made it harder to have a

functioning work schedule, which subsequently affected how often the offices could be in direct contact.

That said, other voices did not see the time difference as a substantial problem for reverse knowledge flow. The Global Head at Austen provided a nuanced view that he did not perceive the time difference between offices to be a major problem as long as he managed his time well. In his situation, he focused on matters pertaining to Asia in the morning and then looked at European matters in the afternoon once the HQ's employees woke up.

4.2.4 Autonomy – emerging markets wanted a high level of autonomy for knowledge sharing due to local context

Subsidiary opinions on autonomy for reverse knowledge flows

The ability to take more local decisions without HQ control was thought of as important by the majority of interviewees. One reason for the demand for increased autonomy was that the subsidiaries possessed greater knowledge of the local operations in the country than HQ. Thus, it was appropriate to let local management develop their own strategy and budget. For instance, the Managing Director at Assa Abloy said that the MNC had a focus on local adaptation and that the HQ did not know all the regional details by design. This was strengthened by the annual report of Assa Abloy (2022) which states that local presence and knowledge creation are essential for the organization at large. This went in line with others, who argued that emerging market subsidiaries knew their market best and therefore HQ did not need to involve itself with all local knowledge acquisition.

"Decentralized decision-making means that we´re not expected to just send back all the knowledge we gain here. We can make decisions here and be self-sufficient." – Managing Director at Company X

That said, the subsidiaries needed approval from HQ on their strategy and larger projects and were therefore unable to run their own business as fully self-directed. As the Managing Director at Envac emphasized, new products that go against the strategy could not be developed even though it would benefit the subsidiary's accounts.

With the positive consideration for subsidiary autonomy in mind, some interviewees brought up that too much autonomy may be damaging for reverse knowledge flows. For example, the

Head of People at Ericsson said that knowledge flows may be limited by changing to a high level of decentralization since there is less connection between HQ and the subsidiary. This statement goes in line with Ericsson's annual report (2022), which says that restructuring organizations could affect accumulated knowledge negatively. In addition to lost connection between offices, some interviewees spoke well of some degree of centralization since the local subsidiaries did not need to duplicate standardized practices. Two quotes follow on these points:

"High level of autonomy does not hinder knowledge flows, but it doesn't help either. People tend to forget to report back information to HQ due to the fact that they are focusing and busy running their own entity or department. Meaning that information might not be transferred due to personal reasons rather than the ability to share knowledge." – Global Head at Austen

"It is a lot of centralization of communication, key points, templates, and guidelines. I do a lot of it centrally for a few reasons. One is duplication of efforts because then the countries don't have to do it another 14 times. You know, like they can take what I had just offered it slightly and then they go right in terms of templates in terms of everything." – HR Director at Geodis.

Autonomy level differences between departments

The levels of autonomy found in the emerging market subsidiaries studied were diverse, depending on the type of department or function in the organization. Some parts of the subsidiary needed to be centrally controlled to create a uniform sense of business and to fulfill regulations. For instance, the Financial Specialist at Atlas Copco described her function as centralized by HQ since they oversaw the numbers and figures that were transferred to HQ. Though local tax regulations were specific to the local market, HQ did not understand how it was operated. On the other hand, The Communication Specialist at the same company had a high level of autonomy in the day-to-day business and she stressed the urge to have a regional managing director with high authority who could make decisions on larger projects instead of getting approval from HQ. Whether this was the case depended on who bore responsibility for the profits and losses in the organization. If the subsidiary was held responsible for these, then autonomy became higher.

Also, it was mentioned that the industry in which the MNC was doing business was a feature that affected the level of autonomy needed. Telecom companies (i.e. Ericsson) had a higher degree of autonomy while manufacturing companies did not require such a high level of autonomy.

"It depends on what kind of industry. For telecom, I have seen more decentralization in this company. But for manufacturing companies, I see more centralized. And at Ericsson, in the telecom industry the company is actually more decentralized." – Head of People at Ericsson

Another facet that seemed to determine the level of autonomy granted to the subsidiary was the role HQ assigned to the subsidiary. In the case of Geodis, their Asia-Pacific office was a regional HQ in its own right with subsequent autonomy to make some strategic decisions on its own. In contrast, Gunnebo´s subsidiary in Asia acted more as a distributor role of the Gunnebo products to the local market, which gave them less room to set strategic objectives.

Autonomy in emerging markets

Some interviews gave insight into the need for autonomy in emerging markets particularly. Local business environment differences were considered especially important to take into account in the emerging market context. In China for instance, the leader was assumed to make the decisions, creating a bottleneck among managers. That is something Austen wanted to change, making colleagues comfortable taking decisions by themselves. The Head of Operations at InterEast, who worked at an adolescent centralized MNC present in European emerging markets, stated that the subsidiaries' power lies in the knowledge they have since the subsidiaries are not as autonomous. Therefore, lower levels of autonomy from European emerging subsidiaries also decreased the knowledge flows to European HQs.

4.2.5 Formal communication channels – regular inter-office meetings benefited sharing but intranets were a mixed bag

Regular meetings with the global functional executive at HQ

A trend that was positively tied to knowledge flows by multiple interviewees was the regular inter-office meetings between subsidiary managers and global managers at HQ. The local knowledge and market insights from the subsidiary were encouraged to be shared with HQ at these meetings. The regular sharing meeting was one of the investigated factors that was most explicitly connected to increased reverse knowledge flows.

This practice was repeatedly shown to be exercised at Geodis, where all four of the interviewed subsidiary directors were in regular contact with at least one respective global functional executive at HQ on a biweekly basis. Multiple of the other MNCs' subsidiaries had monthly meetings with HQ to share progress on operational and financial targets, with the possibility of ad-hoc meetings in-between. The formal communication structure was "very simple but effective", as stated by the Global Head at Austen. Regular inter-office meetings were often set up in the same way. In some cases, the regional subsidiary-HQ exchange was brief and precise, with HQ handing over top-down directives but leaving space for regional experimentation. As stressed by the Head of People at Ericsson´s Northeast Asia subsidiary, they did not have much formal meeting communication with the HQ due to the regional self-propelled approach.

A challenge to the formal communication channels was knowing which contact person at HQ to share knowledge to. At Geodis for instance, there were different global leads for different topics that sometimes overlapped. There was a global internal control and a risk management director, a chief compliance officer, a global data protection officer, and a global ethics director for compliance investigations; all of whose knowledge was shared to different degrees. Some subjects could be relevant to multiple executives at HQ. All this bred confusion regarding how one should report certain matters. A finding that emerged from the interviews was that regular meetings with HQ could impede reverse knowledge flows if the formal communication structure was too complex.

IT systems for knowledge flows were utilized to varying success

A smorgasbord of IT systems was utilized at the interviewed MNCs to facilitate the dissemination of knowledge between subsidiaries and the HQs. Some of the MNCs had Microsoft SharePoint as a major tool used to share documentation internally, while other companies were using their internally developed intranet to share documented knowledge. However, there was not much support for a connection between the IT systems and increased reverse knowledge flows.

One positive effect of embracing the platforms, or intranets, for knowledge flows within the MNC network is that it could consist of documentation and materials created by HQ but also by subsidiaries in other countries. One concern knowledge flows through the usage of an

intranet is the accessibility of company laptops, and other IT challenges to access the system. The HR Director at Gunnebo said that while their IT framework was great, the implementation needed improvement.

"I think the Gunnebo LEARN [internal HR system] is a very effective tool, but due to the constraints that we have, the effectiveness is not yet optimal." – HR Director at Gunnebo

An outcome that emerged from the IT systems sub-topic was that the systems were useful for sharing knowledge downward in the organization but rarely in a reverse manner. Some interviewees told of the upsides of the intranet IT systems for knowledge flows, but the majority of the descriptions referred to forward knowledge dissemination to the local employees rather than the opposite.

4.2.6 Expatriates – The use of expatriates transferred local expertise, but knowledge from repatriates was not always disseminated

Boundary-spanning role of expatriates

Multiple interviewees made the case for expatriate initiatives to learn the local environment and facilitate reverse knowledge flows, even with increasing online communication to share knowledge. It was seen as important to understand how to communicate with the people at the HQ and the expatriates could fill this role of understanding and local networks with the other office in an efficient way. This was said to be true for both subsidiary managers expatriating to the HQ and vice versa.

"We need collaborations. If you rotate experience and you have been there [at the HQ] face-to-face, it's really helpful. Knowing the name as compared with knowing them in person, that's quite different. So that´s really helpful to have this exchange from a market area to the headquarters and vice versa." – Head of Talent Management at Ericsson

Expatriate usage helped overcome one of the greatest obstacles to share knowledge: a lack of environmental understanding between Asian subsidiary countries and the HQs in European countries. By letting expatriates fill a dual role of being cultural ambassadors for their home office as well as being sponges of local customs and organizational traditions, they aided in solving this mismatch. Three interviewees said that the use of expatriates made this cultural divide more manageable. For instance, the Customs Brokerage Director at Geodis argued that

using expatriates to bridge the gap between offices rather than cutting down on these programs was a more sustainable strategy. Otherwise, they thought that there were few exchanges between the offices.

"Many big companies have already reduced their expat[-riate] deployment strategy. Of course, it's good for cost control, but it can be a very short-sighted strategy. Because after a while, those people working in the HQ don't have any knowledge about the biggest markets they have: in India, in China. And they only receive information from the local team. They probably go there once every six months, that's it." – Customer Brokerage Director at Geodis

Knowledge sharing post-repatriation

A process that was seen as vital when using expatriates for reverse knowledge flows was how to spread the gained knowledge after the expatriates had repatriated to their home office. Rather than taking the dissemination stage for granted, multiple interviewees argued that this stage was difficult to follow through with. This was exemplified by the Managing Director at Company X and the Global Head at Austen, who said that repatriates at their MNCs were not necessarily guaranteed a similar role or responsibility area once repatriated. Therefore, the position the employee got when repatriated could cover something vastly different than the knowledge that the employee gained when being an expatriate. Thus, the knowledge that had been transferred got lost due to new tasks in other departments when repatriating. The interviewees that brought up the challenging aspects of repatriation did express an understanding of the fact that the HQ could not always hold the manager position open until they return from their overseas stay. Nonetheless, the lack of a guaranteed position made reverse knowledge flows through expatriates more difficult to occur.

Expatriates in the digital transition

With the digital transition of communication and knowledge dissemination, one interviewee brought up online experiences that were thought of as comparable to physical expatriatism. In connection to the Covid-19 pandemic, key functions have not needed to be physically present to the same extent as before the pandemic. An example was given by the HR Manager at Gunnebo, who told of an HR project that spanned offices and made the need for expatriates redundant. People working at a regional office did not have to be located within that region anymore, which affected the use of expatriates and the knowledge they could gain and share.

4.3 Summary of findings

In Table 4, the most prominent themes from each factor and driver are presented.

Factor/Driver	**Key empirical takeaways**
HQ problemistic search	When HQ found a lack of information, they asked the subsidiaries for the necessary knowledge. Since problemistic search solely looked at current problems, reverse knowledge flows from problemistic search tended to be short-sighted.
HQ absorptive capacity	The ability and willingness to absorb knowledge were essential for reverse knowledge flows to happen. The need for HQ to listen to its subsidiaries when they share information was highlighted as vital for reverse knowledge flows to happen in the first place. Interpretation of the shared knowledge also affected whether the knowledge was absorbed.
Institutional profile	There were differences in norms and beliefs between Asian subsidiaries and the HQs regarding the hierarchical view of the organization and fear of 'losing face', which potentially hampered reverse knowledge flows. Mutual importance on respect created synergies, while the regulatory profile had little support.
Language differences	The business language was English when different nationalities were communicating. Within the offices of the subsidiaries, local languages were most common. English accent differences were a larger obstacle to share knowledge than the language level differences, as many were proficient in English.
Spatial distance	Digital communication tools nullified the effect of distance on reverse knowledge flows, but some argued that face-to-face interaction remained important for knowledge sharing. Time zone differences acted as a minor hindrance to effective reverse knowledge flows.
Autonomy	Decision-making was broadly decentralized due to local differences and awareness by the HQ of not having the need to understand everything everywhere. However, the optimal autonomy level depended on the subsidiary function, subsidiary purpose, and MNC industry.
Formal communication channels	Regularly scheduled inter-office meetings with HQ executives were found to facilitate reverse knowledge flows greatly, but knowledge exchange was lost when the reporting structure was too complex. MNC intranets and related IT systems were seen as being positive for knowledge dissemination to lower rungs in the MNC but were generally not seen as very beneficial for reverse knowledge flows.

Expatriates	Expatriates enabled foreigners to understand local environment differences, increase knowledge flows, and create networks within the organization. However, there were difficulties associated with repatriation and making sure that the gained knowledge was utilized in the home office. Face-to-face interactions were important to maintain the benefits for expatriates.

Table 4. Key takeaways from the empirical chapter (Compiled by authors).

In the next chapter the findings from this chapter will be analyzed with previous theory on the topic of each driver and factor in the theoretical framework. These are analyzed separately to increase understanding of how drivers and factors affect how reverse knowledge flows unfold in emerging markets.

5 Analysis

In this chapter, all drivers and factors are analyzed through the theoretical framework. First, the drivers HQ problemistic search and HQ absorptive capacity of reverse knowledge flows are analyzed one by one. Second, this study's factors of reverse knowledge flows are analyzed in the same manner as the drivers. The factors are: institutional profile, language differences, spatial distance, autonomy, formal communication channels, and expatriates. Throughout this chapter, the findings of all drivers and factors will be compared and critically discussed with previous research.

5.1 Analysis of drivers

5.1.1 HQ problemistic search for knowledge – HQ managers influence the occurrence of reverse knowledge flows and bring a risk of short-term thinking

The findings from the case companies confirmed that the theoretical phenomenon of problemistic search from HQ took place and led to reverse knowledge flows. Four of the interviewees highlighted that their focus when sharing knowledge was to make sure that it was relevant in the eyes of the HQ. This went in line with the definition of the problemistic search driver as HQ's search for a pre-existing solution to a problem at its subsidiaries (Jonsson & Foss, 2011).

HQ managers were found to affect what knowledge was valuable and thereby the problemistic search, at times to the detriment of the quality of reverse knowledge flows. The case of the Covid-19 readiness and response plan by Geodis shows that valuable knowledge is sometimes not internalized initially by an HQ since it is not seen as a pressing problem. This supports the research that HQ managers influence the search for knowledge and that they at times are blinded by their current problems rather than other possibilities that reverse knowledge flows could bring (Hu et al., 2021). This points to a problem with reverse knowledge flows arising from problemistic search found in the empirical data; that it is a response to current problems, making it inherently short-sighted. Longer-term problems that are in the future or opportunities for improving best practices over time are more easily missed when all reverse knowledge flows arise from problemistic search. This is not handled explicitly in the literature used for this study.

The lack of problemistic search on knowledge being shared by the subsidiary may also depend on the perception of the knowledge source by the HQ. Following the example with procurement risks from the Internal Controls Director at Geodis, it might have taken time to get the attention of HQ due to the employee's position, where risks were expected to be brought up, and consequently that they might not have been taken as seriously as if they came from another source. This is related to the thinking that HQ assumptions of the value of knowledge are dependent on their previous experiences with the subsidiary (Monteiro et al., 2008). Similar to the parable of the boy who cried wolf, it can take longer to get the message through for a subsidiary because of assumptions at HQ.

5.1.2 HQ absorptive capacity – previous experiences and interpretation of subsidiary knowledge shared affects how willing HQ is to absorb knowledge

HQ absorptive capacity was seen as important to enable reverse knowledge flows stemming from its subsidiaries. Thus, HQs' absorptive capacity was supported by the empirical data as an essential feature for reverse knowledge flows to transpire, in line with previous research (Kostopoulos et al., 2011). To develop a more concrete reverse knowledge flow, it was argued that there must be a determination at an interpersonal two-way communication side to drive the knowledge flows meaning that the subsidiaries are sharing knowledge simultaneously as HQ absorbs the shared knowledge. This goes in line with previous research, which states that it is the HQ employees´ motivation and ability to evaluate, assimilate, and apply the entering knowledge from its subsidiaries (Cohen & Levinthal, 1990; Minbaeva et al., 2003).

HQ's previous experiences of knowledge flows from its subsidiaries were found to be vital for how HQ interpreted new knowledge sent from subsidiaries, which is similar to the previous inter-office experiences being important for problemistic search. In agreement with this sentiment, HQ's willingness to absorb knowledge increases if previous knowledge experiences have been beneficial (Ambos et al., 2006). Arguably, HQ's assumption of the shared knowledge affects the creation of reverse knowledge flows since it helps determine whether HQ wants to take part in the knowledge inflow. Related to this, the empirical data found that HQ's experiences with a subsidiary differed depending on whether the knowledge shared was interpreted as constructive feedback or criticism of HQ. This assumption is not something Ambos et al. (2006) take into account. The HQ interpretation could be important to consider when analyzing why an HQ does not absorb knowledge stemming from subsidiaries. If subsidiaries communicate criticism in a badly executed manner, it could lead

to mistrust from HQ. Multiple MNCs had a problem with this, especially if they were stuck in their own decision-making.

Further, attention was called to subsidiaries often having the opportunity to share local knowledge with HQ. In these situations, listening to each other was considered important, and being able to use the local knowledge in other areas as well. This insight calls for attention to previous research, where external knowledge is to be identified and translated by finding beneficial inflows of knowledge to HQ as listening could be turned into discovering what type of knowledge is present in the organization (Kostopoulos et al., 2011). HQs motivation to gain knowledge from its subsidiaries was often lacking. One problematic feature is that HQ does not fully understand the local context of the Asian emerging market business environment, which goes in line with research that argues that knowledge that is not beneficial to the HQ is not absorbed (Ambos et al., 2006). On the other hand, HQ could have the preconception that the knowledge does not gain them. Therefore, the knowledge will not be absorbed by the HQ.

5.2 Analysis of factors affecting reverse knowledge flows

5.2.1 Institutional profile – inadequate support for regulatory element, but perception of organizational hierarchy and norms were important for reverse knowledge flows

The regulatory element of the institutional profile had solely weak support for it affecting reverse knowledge flows from emerging market subsidiaries. This took the form of trade barriers, which existed to a much higher extent in the Asian subsidiary countries than in the European HQ country. Managers in the subsidiary and HQ offices had different perceptions of how this element functions in global trade, which is in agreement with the thought that regulatory aspects form employees´ actions (Kostova & Roth, 2002). Misunderstandings regarding this environmental aspect created difficulties to share knowledge on some occasions. However, it is noteworthy that only one interviewee brought this up, and that respondent was a Customs Brokerage Director who worked with trade regulations daily. Therefore, while there is support for the point that the regulatory environment in emerging markets is different from mature markets (Peng et al., 2008), there is little strength in the empirical data for the differences in regulatory environment affecting the strength of reverse knowledge flows.

A major cognitive difference between Asian subsidiaries and European HQs was found to be the view on the organizational hierarchy. A majority of the interviewees called attention to internalized top-down thinking in Asia, compared to Europe where it was common to downplay the hierarchical position of colleagues. Points were made that these measures lead to complications in creating knowledge flows to HQ. This goes in line with the theoretical point that common cognitive categorizations in a country are often taken for granted and could be hard to understand for an outsider (Kostova & Roth, 2008; Zhao et al., 2014). Thus, a goal of mutual understanding between HQ and subsidiaries could aid the organization in its creation of reverse knowledge flows. So, while the Asian subsidiaries need to understand how the HQ context frames topics such as organizational hierarchy, the HQ also needs to gain an understanding of the local institutional profile of the host country.

There were both similar and dissimilar normative elements found between Asian subsidiaries and European HQs in terms of social values. Three interviewees highlighted that politeness and respect in the organization were common in both locations which are considered important aspects when sharing knowledge with each other. A dissimilar element brought up by interviewees was the fear of 'losing face' among their Asian employees, which was contrasted to European social values. This in turn created a lack of opportunities to share knowledge if the employees were not willing to speak up. This feature went in line with the description of normative elements affecting the institutional profile (Kostova & Roth, 2002; Scott, 1995). A noteworthy finding on the normative fear of 'losing face' was that employees were more willing to share knowledge when having one-on-one conversations with their managers instead of in a group setting. This reinforces that the key mechanism of the normative element is the social expectations that people set on each other. Therefore, a potential way to mitigate its negative effect on reverse knowledge flows could be to establish an individual environment for knowledge sharing without fear of normative judgment.

5.2.2 Language differences – common business language is beneficial for knowledge sharing, but accent and language levels make local languages viable as well

Companies that are present at the global level, as MNCs, all have English as a common business language as their main source of communication throughout the firm. The interviewees were aligned with previous research that it is beneficial to gain understanding and to be recognized in meetings, through documents, and to be able to share knowledge with the rest of the MNC if a common language is existing (Peltokorpi & Yamao, 2017; Welch &

Welch, 2008). When an MNC has a shared business language, misunderstandings or alienation decreases (Hoenen & Kostova, 2015), which was found to proceed to a more effective reverse knowledge flow by the interviewees. On the other hand, not all employees within an MNC are comfortable speaking or writing in English due to their non-native understanding of the foreign language. Employees in emerging countries were said to be more likely to share knowledge with others if they can speak in their own language as they do feel confident with what is being said. The desire to speak the native language could be seen as a barrier to knowledge flows as it prohibits a smooth transition of knowledge to other colleagues at HQ not speaking the language (Barnet-Rasmussen & Aarnio, 2011).

Furthermore on the topic of language barriers, language proficiency and accent variety were highlighted throughout most of the interviews as they created misunderstandings and made it more difficult to share all the knowledge with HQ from a subsidiary. Previous research has examined especially what differences in languages could achieve with a focus on knowledge flows (e.g. Welch & Welch, 2008). Previous research regarding accent differences for knowledge sharing was lacking but was found to be one of the major hindrances to reverse knowledge flows in this study. Meetings could be in English, with everyone participating speaking English, thus at the end of the meeting, participants could be very confused about the outcome as they did not understand each other due to accent differences. This was found as an important feature to consider as English pronunciation could deviate between Asian subsidiaries and European HQs. One way of solving this issue presented was to create documentation that is sent to all participants in the common business language, which creates the possibility for the participants to translate it into their native language if needed. Hence, these translation actions create costs for the MNC.

Direct costs associated with language for a company could be to acquire the right translation tools, making it possible to directly translate documents, contracts, or audio. It was highlighted in some interviews that the translation tools are commonly used to enable all documentation to be acquired by both the subsidiary and its HQ in any language necessary. This study and previous research have found that costs associated with language translations are common in terms of time and resources when HQ and subsidiaries with different languages want to share knowledge with each other (Welch & Welch, 2008). Solely employing people with high proficiency in the common business language would decrease

the costs. Hence, the MNC would in turn miss out on considerable knowledge by non-English speaking people (Welch & Welch, 2008), which is not seen as a solution.

Another aspect that was found by the interviewees was the usage of local languages since the relationship with local distributors, customers, and producers were stronger than the European had. In emerging markets, they need to keep the local language with these stakeholders as the subsidiaries in these locations are operating in a more rapidly changing environment where there is no time to translate everything back and forth. The translations of these documents could take days before approval, and emerging market subsidiaries do not always have that time before the distributor, customer or producer choose another collaborator. This aspect has not been found in prior studies.

5.2.3 Spatial distance – digital tools decrease the effect of geographic distance, time zones have solely mild effect on reverse knowledge flows

Through a majority of the interviewees, it was found during the last couple of years, spatial distance has decreased in terms of communication possibilities and permits knowledge flows to a higher degree. Especially due to Covid-19, almost everyone at the companies has expanded their skills and has become more experienced in using digital tools. It was stressed that it does not matter if the subsidiary is located in nearby cities to the MNC HQ, or in faraway countries. In any way, Microsoft Teams (or similar) or the phone needs to be used. A finding in the empirical material is that physical distance is not a barrier to sharing knowledge. In addition, there could be benefits of meeting face-to-face in some cases. Hence, there is a gap in previous research concerning knowledge flow restriction and the effectiveness of physical face-to-face communication and sitting in a non-working environment (Caligiuri et al., 2020). This might be due to the new business environment which has been created during the last years as the effect on the working habits due to Covid-19. Also, one could argue that it is not clear the long-term effect of these measures as some companies are going back to physical interactions, while others are staying virtual. As the subject of knowledge flow due to Covid-19 is recently developed, it is not possible to know these measures yet, and need to be further analyzed in the future.

Face-to-face meetings seem to be beneficial for central functions to see how the reality is, and understand how the business is run abroad. Previous existing knowledge of the distant country is beneficial for knowledge flows (Dikova, 2009). Thus, if you are never able to be

located in a specific country, knowledge flows will lack and the performance will decrease. Therefore, there is a puzzle to solve if the HQ desires to gain all knowledge from its subsidiaries. Hence, as the localized knowledge could be specific solely to the location, HQ might not need the exact understanding of the foreign country's business.

This study found that distance is not a distinct barrier to creating reverse knowledge flows. This agrees with previous research, which says that physical distance does not affect the transfer of reverse knowledge flows (von Zedtwitz et al., 2015). Furthermore, there was no support for a subsidiary being less willing to share knowledge with a HQ that is far away. This contradicts research that proposes employees are more willing to share knowledge within the region than units in faraway countries (Cuypers et al., 2020). One could argue that the interviewees in this study all have communication with HQ, and it lays in their task assignments to share knowledge and collaborate with HQ to a certain extent. Therefore, if the interviewees were employees solely operating within its own region, the result might have differed.

It is important to occasionally send employees to HQ to gain insights from, and share knowledge with, HQ. Hence, the costs are higher for meeting face-to-face with HQ compared to using digital tools. This goes in line with previous research, which has seen that these costs affect the intensity of coordinating knowledge flows (Baaij & Slangen, 2013; Haas & Cummings, 2015). The costs associated with digital tools are purchasing the right tools and educating employees with these tools, while transportation costs could be significantly higher, especially as the MNCs already bestowed digital tools to a majority of the employees. Therefore, digital tools incur less costs for reverse knowledge flows.

Lastly, as there are large time zone differences between Asian subsidiaries and European HQ, this was found to be a minor issue of communicating and sharing knowledge with HQ. Almost all of the interviewees shared that time zone differences are seen as some sort of obstacle to being able to share knowledge with HQ. On the other hand, some found that time zone differences were simply a scheduling issue, not an issue for knowledge sharing. As long as the employees focus on Asia until the HQ in Europe wakes up, there are no issues. This thought does not completely follow the thread of previous research, which states that day-to-day communication decreases with distance and that risks of knowledge not being shared as well as misunderstandings increase (Bahar, 2020; Haas & Cummings, 2015).

Instead, the time zone difference was presented as manageable as long as the time planning of the subsidiary managers accounted for the variation in workday hours. The bottom line is that the time zone difference mildly affects reverse knowledge flows but not any other aspect of spatial distance.

5.2.4 Autonomy – subsidiary autonomy generally supports reverse knowledge flows, but operational and strategic autonomy cause different effects

Subsidiaries wanted more autonomy in general because they had more local knowledge and would be better at sharing their insights. Multiple of the Asian subsidiaries showed a sentiment that was positive towards autonomy for their capabilities and knowledge sharing. Some interviewees argued that they had a better grasp on the local operations in the emerging market country than HQ, and therefore needed more autonomy to make more fitting decisions and share the local knowledge. This finding supports research on autonomy, which shows that high subsidiary autonomy and reverse knowledge flows are positively related in general (Oh & Anchor, 2017; Paterson & Brock, 2002). Additionally, this empirical data also went in line with the individual level context. It showed that individual employees are more willing to share knowledge with high subsidiary autonomy (Foss et al., 2009).

Although the majority of data pointed to the advantages of high subsidiary autonomy, there were contrasting opinions by three interviewees that said that there were potential perils with high decision-making autonomy for reverse knowledge flows. One key counter-argument was that the high subsidiary autonomy on its strategy led to more independence, which caused less dialogue between the HQ and the subsidiary. This contradicts the research on the positive relationship and instead supports the contribution that reverse knowledge flows are affected differently depending on if the autonomy granted is strategic or operational (Søberg & Wæhrens, 2020). With high strategic subsidiary autonomy, the reverse knowledge flows decrease rather than increase, which is what the three interviewees postulated. For instance, the HR Director at Geodis brought forth that with high strategic autonomy, there is more duplication of efforts since every office would form its own systems from the ground up. This argument has not been found previously in the research gathered for this study. While the majority of the data pointed towards the transfer benefits of high autonomy, the majority did not make a distinction between operational and strategic autonomy. Thus, both arguments could be true, but the strongest support was found for the positive role of subsidiary autonomy in general.

A theoretical idea that the data supported was that subsidiaries in general strive for higher autonomy (Paterson & Brock, 2002). However, unlike the thought from previous research that HQ acts as an opponent that wants more centralization, the findings did not indicate anything of the sort. This could be due to the research subjects representing a subsidiary perspective, meaning that they do not have the same awareness of the HQ's perspective on autonomy in the MNC. Yet, since some of the interviewees were expatriates who had worked at their respective HQs previously, they could have shared this type of information if this was the case.

Different variables determined how much autonomy was positive for reverse knowledge flows. While there was a general consensus on subsidiary autonomy in general, the empirical data revealed that the optimal autonomy was different depending on three variables: functions within the subsidiary, role assignment from HQ, and the MNC industry. First, it was found that the level of autonomy varied between the subsidiary functions. For instance, the finance function at one subsidiary had low autonomy while the communication function was highly autonomous, all in the same subsidiary office. This again strengthens the thought that operational and strategic autonomy have different effects on reverse knowledge flows, with the finance function being more operational and detail-oriented while the communication function focused more on strategic matters (Søberg & Wæhrens, 2020). This level of detail on the functions requiring different amounts of subsidiary autonomy is not well-covered in the literature found. One reason for this is likely due to the complexity of studying autonomy if all the organizational functions were differentiated.

Further, the level of autonomy is given depending on the role that the HQ assigned the subsidiary. For example, Geodis had more autonomy as a regional HQ in its own right, while the Gunnebo subsidiary had more of a distributor role and subsequently needed less autonomy. This finding supports the theory that the level of autonomy should depend on the desired purpose of the subsidiary (Rašković et al., 2013; Baaij & Slangen, 2013; Rabbiosi & Santangelo, 2019). This subtopic can also be related to the operational and strategic divide of autonomy in subsidiaries, making it clear that this departmentalization is accurate to the reality of how MNCs operate (Søberg & Wæhrens, 2020). Finally, the industry mattered for what subsidiary autonomy was optimal for reverse knowledge flows. The telecom industry was said to have more autonomy while manufacturing was more centralized. In the same way

that production facilities have previously been found to need lower level of autonomy while R&D facilities needed higher autonomy (Rabbiosi & Santangelo, 2019; Rašković et al., 2013; Geppert et al., 2003), the amount of creativity and differentiation required in the industry could set the difference in autonomy between industries.

5.2.5 Formal communication channels – digital tools increase reverse knowledge flows, but access to the systems is a roadblock

Two main insights of formal communication channels with explicit knowledge were found. First, all interviewees had at least monthly meetings with HQ, some had biweekly meetings and ad-hoc meetings in between these. Second, there are at least two difficulties with formal communication channels: (1) the complexity of organizational structures, and (2) accessibility of the hardware enabling employees to use the software.

The monthly and biweekly meetings are used within all MNCs in this study. These meetings are successful since they are simple, yet effective. This goes in line with research that has shown that the effectiveness of knowledge flows lays in the hands of the utilization of the communication channels (Gupta & Govindarajan, 2000). Though, the complexity of business structures was found to make it difficult for employees to understand whom to contact regarding specific subjects. The lack of clarity on who to contact when increases as the business structure becomes too complex. By these measures, the knowledge flows could diminish if the correct recipient is not reached. These measures were not found in previous studies.

HQ was found to leave space for regional practices, meaning that it did not micro-manage the formal communication at its subsidiary. This goes in line with previous research which argues that if the subsidiary does not need to communicate through formal channels, they obtain their uniqueness, letting the MNC become heterogeneous at large (Meyer et al., 2011). Hence, as a majority of the MNCs are using a variety of corporate intranets to share documents, and the biweekly or monthly reporting meetings HQ gains knowledge about the subsidiaries' business anyway.

Meanwhile, although the subsidiary's employees had access to intranet platforms, not all employees have access to personal computers. Therefore, the subsidiary's employees themselves do not have the possibility to look into these platforms to increase or share their

knowledge with either HQ or the local subsidiary. Hence, as described by Belderbos et al. (2017), coding knowledge, and creating knowledge flows, are large investments concerning time and financials at the MNC. Therefore, the employees who do not need the right tools cannot share their knowledge which could restrain possible benefits for the MNC at large. On the other hand, the initial investment is heavy (purchasing computers, employee education, etc.), but once these communication channels have been established, the costs decrease rapidly. Since the software is already present and used within organizations, the hardware and education are missing.

5.2.6 Expatriates – expatriates act as mediators and carriers of tacit knowledge between HQ and subsidiary

The use of expatriates was found to have a positive role in reverse knowledge flows at the emerging market subsidiaries. Thus, the empirical findings go along with the prevailing theoretical thought that finds the same connection between expatriates and reverse knowledge flows (Cuypers et al., 2020; Cheong et al., 2019; Meyer et al., 2020). One expatriate trait that was particularly highlighted was their roles as mediators between the HQ and its subsidiary in terms of environmental understanding. With the expatriates as mediators, the use of expatriate programs was a highly effective way for an office to learn about the unique context of another office. This was in accordance with the theory of expatriates being boundary spanners and exchanging local knowledge (Harzing, 2001; Au & Fukuda, 2002). Additionally, the finding supports the thought that sharing knowledge through expatriates fits the emerging market subsidiary context especially well, where the employees have a different perspective than the HQ on another continent (Ertug et al., 2018; London & Hart, 2004; Engelhard & Nägele, 2003; Andersson et al., 2005). The reasoning behind the appreciation for expatriates as deliverers of knowledge flow is likely related to the fact that they attain tacit knowledge during their tenure at the foreign office. Everything from local relationships with co-workers to informal watercooler discussions are contexts where the expatriate picks up local knowhow and processes, whether they are aware of it or do it subconsciously. These are all examples of tacit knowledge gained or knowledge derived from personal experiences (Nonaka, 1994). Furthermore, while not all of this knowledge will be relevant upon repatriation, some of it will likely help inform the host office of the foreign office conditions and have a stronger holistic view of the subsidiary.

The repatriation stage was shown to be a pain point for expatriates' facilitation of reverse knowledge flows. The theory arrives at a similar conclusion, in agreement that leveraging expatriates after repatriation is one of the most challenging stages of the expatriate exchange to disseminate knowledge (Black & Gregersen, 1999). A key problem in the cases presented by two interviewees was that subsidiary expatriates were not guaranteed a similar job position as prior to their expatriation. This made it more difficult to disseminate the knowledge that the expatriates obtained during their stay.

A final idea that was brought up in the empirical data was the increasingly digitized inter-office communication making physical expatriatism unnecessary. A general sentiment from the case companies on the digitized environment that has ramped up with the Covid-19 pandemic has been that it has worked satisfactory for the most part. This digitized environment includes the reduced output of new expatriate exchanges between emerging market subsidiaries and HQ, which seems to have been working well for reverse knowledge flows according to the interviewees. This can seem like a challenge to the theoretical discourse shown above that expatriates are necessary for good knowledge flows between subsidiary and HQ (e.g., Cuypers et al., 2020; Cheong et al., 2019; Meyer et al., 2020). On the other hand, there was strong support from the empirical data on the benefits of physical expatriatism. This could be related to the fact that expatriates can be carriers of tacit knowledge, which is likely not replicable by an online meeting room for inter-office meetings. This indicates that while the digitized experiences of inter-office communication could be seen as sufficient during times where travel is not possible, expatriate use between offices is still beneficial for reverse knowledge flows.

5.3 Summary of analysis

In Table 5, the analytical summary of insights regarding the factors and drivers is presented.

Factor/Driver	**Key empirical takeaways**	**Key analytical takeaways**
HQ problemistic search	When HQ found a lack of information, they asked the subsidiaries for the necessary knowledge. Since problemistic search solely looked at current problems, reverse knowledge flows from problemistic search	Empirical and theoretical comparison: The phenomenon of problemistic search from HQ is found to exist and confirms previous research. HQ managers could influence whether reverse knowledge flows take place. It took time to get the attention of HQ due to job position, which could be

	tended to be short-sighted.	tied to the HQ's perception of knowledge value depending on previous experiences of the knowledge source. <u>Implications to theory:</u> There is a short-term perspective element to problemistic search that makes it harder for reverse knowledge flows to take place that are potentially useful in the future (cf. Hu et al., 2021).
HQ absorptive capacity	The ability and willingness to absorb knowledge were essential for reverse knowledge flows to happen. The need for HQ to listen to its subsidiaries when they share information was highlighted as vital for reverse knowledge flows to happen in the first place. Interpretation of the shared knowledge also affected whether the knowledge was absorbed.	<u>Empirical and theoretical comparison:</u> Absorptive capacity is an important aspect to enable reverse knowledge flows, as the knowledge that is shared otherwise gets lost since it is not received by the HQ. HQ's previous experiences of knowledge flows from subsidiaries might affect the absorptive capacity. HQs are more willing to absorb knowledge that is beneficial to them, meaning that specific local knowhow shared from subsidiaries is often not absorbed by HQ. This all supports previous theories on the subject. <u>Implications to theory:</u> The HQ's willingness to absorb knowledge depends on if the knowledge shared from the subsidiary is interpreted as constructive feedback or criticism (cf. Ambos et al., 2006).
Institutional profile	There were differences in norms and beliefs between Asian subsidiaries and the HQs regarding the hierarchical view of the organization and fear of 'losing face', which potentially hampered reverse knowledge flows. Mutual importance on respect created synergies, while the regulatory profile had little support.	<u>Empirical and theoretical comparison:</u> Little support was found for the regulatory element having any effect on reverse knowledge flows, except a weak link to trade barrier regulations. The normative element contained a strong difference in terms of the perception of organizational hierarchy, which went in line with previous research. Within the normative element, both the positive aspect of mutual respect and the negative aspect of fear of 'losing face' were consistent with theory.

		<u>Implications to theory:</u> Employees that were repressed by a normative environment to not speak up were more willing to share local knowledge in one-on-one conversations (cf. Kostova & Roth, 2002).
Language differences	The business language was English when different nationalities were communicating. Within the offices of the subsidiaries, local languages were most common. English accent differences were a larger obstacle to share knowledge than the language level differences, as many were proficient in English.	<u>Empirical and theoretical comparison:</u> A common business language is beneficial for knowledge flows as miscommunication and misunderstandings otherwise might occur. Language proficiency is a barrier to knowledge flows as it increases misunderstandings. Costs are associated with using a common language in an MNC in terms of time and resources. <u>Implications to theory:</u> Employees tend to be more willing to speak up and share knowledge if they get to speak their native language (cf. Welch & Welch, 2008). Accents are a barrier to knowledge, potentially solved by translation tools and summary emails after meetings (cf. Barner-Rasmussen & Aarnio, 2011). Using local languages in emerging markets is supported, as the relationship with stakeholders is different compared to European countries.
Spatial distance	Digital communication tools nullified the effect of distance on reverse knowledge flows, but some argued that face-to-face interaction remained important for knowledge sharing. Time zone differences acted as a minor hindrance to effective reverse knowledge flows.	<u>Empirical and theoretical comparison:</u> Spatial distance is not found to directly decrease reverse knowledge flows, which opposes some research. Existing knowledge of a distant country is advantageous for the knowledge flow. Enabling face-to-face meetings with employees at foreign subsidiaries and HQ creates costs. <u>Implications to theory:</u> Spatial distance has decreased due to digital tools and becomes increasingly irrelevant, an effect of Covid-19 (cf.

		Caligiuri et al., 2020). Employees are not less willing to share knowledge due to the distance between subsidiaries and HQ (cf. Cuypers et al., 2020). Time zone differences only affect reverse knowledge flows mildly since employees in subsidiaries can take time zone differences into account in their workday.
Autonomy	Decision-making was broadly decentralized due to local differences and awareness by the HQ of not having the need to understand everything everywhere. However, the optimal autonomy level depended on the subsidiary function, subsidiary purpose, and MNC industry.	Empirical and theoretical comparison: While most data support a positive effect of high subsidiary autonomy on reverse knowledge flows, there is also support for a distinction between operational and strategic autonomy. High operational autonomy leads to more reverse knowledge flows while high strategic autonomy leads to less reverse knowledge flows due to the higher independence. Nevertheless, there is an overall positive relationship between high subsidiary autonomy and reverse knowledge flows. Implications to theory: A high strategic subsidiary autonomy leads to more duplication of efforts and less reverse knowledge flows since subsidiaries rebuild strategies and systems that might be preexisting in other MNC offices and communicate less to HQ (cf. Søberg & Wæhrens, 2020).
Formal communication channels	Regularly scheduled inter-office meetings with HQ executives were found to facilitate reverse knowledge flows greatly, but knowledge exchange was lost when the reporting structure was too complex. MNC intranets and related IT systems were seen as being positive for knowledge dissemination to lower rungs in the MNC but were generally not seen as very beneficial for reverse knowledge flows.	Empirical and theoretical comparison: Continuous meetings with subsidiaries and HQ increase reverse knowledge flows. Formal communication channels are associated with costs in terms of software, education, hardware, etc. which limits the possibility to share knowledge by the employees who are not in need of these tools in their working tasks. Implications to theory: A complex organizational structure hinders reverse knowledge flows since important receivers could be left out in

		the formal communication channels (cf. Meyer et al., 2011).
Expatriates	Expatriates enabled foreigners to understand local environment differences, increase knowledge flows, and create networks within the organization. However, there were difficulties associated with repatriation and making sure that the gained knowledge was utilized in the home office. Face-to-face interactions were important to maintain the benefits for expatriates.	Empirical and theoretical comparison: Expatriate usage is related to increased reverse knowledge from emerging market subsidiaries, which goes in line with theory. The greatest benefits include the expatriate's role as an office mediator, ambassador of the different environmental contexts, and the accumulation of tacit knowledge. Repatriation is a difficult stage when the expatriate is not guaranteed a similar position upon return to their home office, agreeing with previous research. Implications to theory: The digitized inter-office communication between the HQ and the subsidiary creates a potential for replacing expatriate exchanges when those are not possible, but overall physical presence is likely still optimal (cf. Cheong et al., 2019).

Table 5. Key takeaways from the empirical chapter and analysis chapter. (Source: Compiled by authors)

During the analysis of the empirical chapter together with previous research, it was found that formal communication channels play an important role in facilitating reverse knowledge flows and that spatial distance does not hinder or trigger reverse knowledge flows if the possibilities of using these communication tools exist. Therefore, the formal communication tools invalidate spatial distance as a factor in the initial theoretical framework. Additionally, the spatial distance factor found weak support in itself in the empirical data. Thus, a revised framework has been developed to highlight the actual factors which unfold reverse knowledge flows from emerging market subsidiaries.

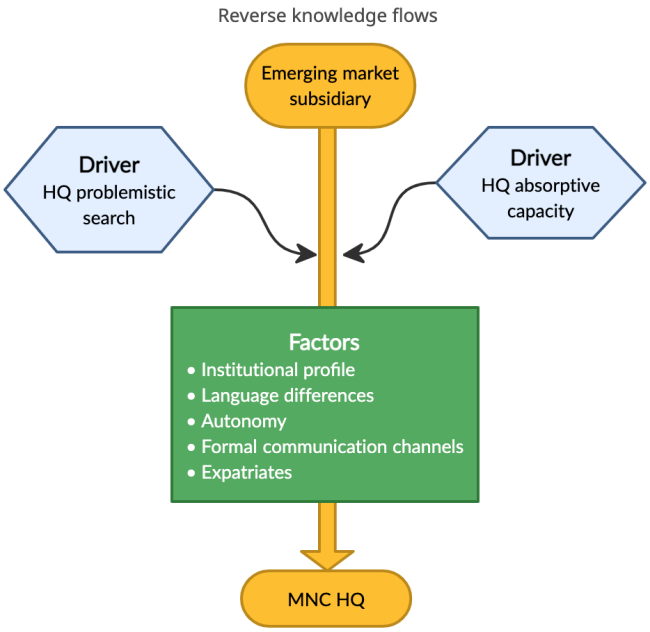

Figure 2. Revised theoretical framework: The reverse knowledge flow process from an emerging market subsidiary (Compiled by authors).

6 Conclusions

6.1 Main findings

The research question in this study was: *How do vertical reverse knowledge flows unfold from emerging market subsidiaries?* Vertical reverse knowledge flows were found to unfold through drivers that created reverse knowledge flows and factors. To enable this study to answer the main research question, the sub-question identifying the drivers and factors needed to be answered. The found drivers were HQ problemistic search and HQ absorptive capacity, while the found factors were institutional profile, language differences, spatial distance, autonomy, formal communication channels, and expatriates. The main findings of each driver and factor are presented below.

The existence of the problemistic search phenomenon was supported as a driver of reverse knowledge flows, in which HQ sought pre-existing knowledge in its subsidiaries to current problems. It was found in this study that it could take time for the emerging market subsidiary to get the attention of HQ depending on the job position of the sender, which could be tied to the HQ's perception of knowledge value depending on previous experiences of the knowledge source. Further, problemistic search inadvertently caused a short-term perspective on reverse knowledge flows which affected the perceived value of subsidiary knowledge.

Absorptive capacity was identified as a vital driver to enable reverse knowledge flows to take place, as subsidiary knowledge would be lost if the ability or willingness to receive it at HQ was missing. Similarly to problemistic search, the origin of the knowledge flow at the subsidiary was proposed to affect the absorptive capacity. Above aspects were found in previous research and this study could therefore strengthen these matters on the topic of absorptive capacities and the role of reverse knowledge flows. The emerging market subsidiaries had different outcomes depending on how the knowledge shared to HQ was communicated.

This study found mixed support for institutional profile factor. The regulatory element had solely a weak link to reverse knowledge flows because of regional differences in trade barrier regulation. However, the normative element found strong support for affecting reverse knowledge flows. This was caused by different perceptions of organizational hierarchy between Asian emerging market subsidiaries and the European HQs. Next, this study

established that the normative element changed the ability to share knowledge between offices with both a positive and negative effect. Employees that were repressed by the normative environment to not speak up were more willing to share local knowledge in one-on-one conversations.

Language differences contained multiple insights that were attributed to effects on reverse knowledge flows. A common business language between subsidiary and HQ was beneficial for knowledge sharing as it lessened the risk for miscommunication. However, a common language also brought differences in language proficiency and dampened this benefit. Resource costs and opportunity costs were associated with using a common MNC language. The study generated the finding that employees tended to be more willing to speak up and share knowledge if their native language was used. Additionally, accent differences made knowledge sharing more difficult and local language use was seen as beneficial for gaining knowledge in the emerging market.

Spatial distance was found to not affect reverse knowledge flows directly. Additionally, the use of the factor formal communication flow was found to overlap heavily with the challenges of geographic distance, making the spatial distance factor redundant. The use of digital communication tools decreased perceived office distance and was seen as a complement, or even replacement, to face-to-face meetings. Nevertheless, physical meetings were found to still be relevant. Time zone differences were found to be a concern for communication between subsidiaries and HQs on different continents, but solely had a mild negative effect on how well reverse knowledge flows could happen.

A high level of subsidiary autonomy appeared to generally be positively associated with reverse knowledge flows. Additionally, empirical data called for a distinction between operational and strategic autonomy, in which high operational autonomy led to more reverse knowledge flows while high strategic autonomy led to less reverse knowledge flows. In connection to the lessened effect on knowledge sharing, a high level of strategic subsidiary autonomy caused more duplication of efforts in the MNC.

Extensive use of formal communication channels were found to be beneficial for reverse knowledge flows. Continuous meetings between subsidiaries and HQ increased reverse knowledge flows in a highly efficient way. There were some costs associated in terms of

software, education, hardware, etc., which limited the effect of IT systems in sharing knowledge. Additionally, this study found that reverse knowledge flows were decreased by formal communication channels that were too complex in structure.

Expatriates were perceived to aid reverse knowledge flows by acting as office mediators, environmental context ambassadors, and accumulators of tacit knowledge. A key finding was that expatriatism from HQ increased knowledge of the local emerging market context. Repatriation was a difficult stage upon return to the home office, in agreement with previous research. The notion of digital communication potentially replacing the need for expatriates was explored, but the benefits of physical presence was still considered superior for reverse knowledge flows.

6.2 Theoretical Contributions

Some of the findings of this study have implications for future research in the HQ-subsidiary and knowledge flow fields.

First, the self-constructed theoretical framework is a contribution that may be used and revised further in future research. The interaction between drivers, factors, and reverse knowledge flow may be developed into a robust framework that shows how the process functions.

The drivers of reverse knowledge flows had different implications on how reverse knowledge flows were created and what they were based on. The immediacy of HQ problemistic search for knowledge at its subsidiaries was found to cause a short-sightedness on what knowledge was considered valuable. HQs were found to often search for knowledge on-demand. Therefore, this makes it more difficult for reverse knowledge flows that are potentially useful in the future to take place. Another implication was that the way that the emerging market subsidiary communicated knowledge could affect how high willingness the HQ had to absorb the knowledge.

On an individual employee level at the emerging subsidiary, there were theoretical contributions on how the amount of reverse knowledge flows could be increased. First, employees in some Asian emerging market countries displayed hesitancy to speak up during

group environments as a consequence of the normative element in the region. Second, subsidiary employees that did not have the MNC business language as their native tongue were less comfortable to share knowledge in that language. There were indications found that speaking to employees in a one-on-one environment as well as in the native tongue were beneficial for increased reverse knowledge flows as more local insights could be shared.

On an organizational level, the structure of the HQ-subsidiary relationship was found to change how reverse knowledge flows took place. Something found in this study but not in previous research used was that a high strategic subsidiary autonomy led to more duplication of efforts and less reverse knowledge flows, since subsidiaries rebuilt strategies and systems that might be preexisting in other MNC offices. While the trend leaned toward the positive effect of high subsidiary autonomy holistically, this aspect of duplication is worth consideration. Additionally, an implication from the study regarding organizational structure was that formal communication channels could be harmed by a reporting structure that was too complex for the knowledge sender. This in turn worsened reverse knowledge flows, in contrast to the general beneficial nature of formal communication channels found.

Finally, the surge of digital tools in communication has changed the way the emerging market subsidiaries send knowledge to their HQs, which has brought multiple implications worth studying. Digital communication channels were heavily used and reduced the necessity for the subsidiary to have any geographical proximity to its HQ, as evidenced by the found redundancy of spatial distance in this study. This was partly an effect of Covid-19 and all the restrictions on working from home. Moreover, the digitized inter-office communication created a potential complement for expatriate exchanges when those are not possible. However, physical meetings still kept an important role in the HQ-subsidiary relationship for reverse knowledge flows.

6.3 Managerial Implications

The findings present some interesting implications for managers working in MNCs on how to improve interoffice communication and knowledge management at large. First, an overly complex reporting structure is not beneficial for reverse knowledge flows, as it creates confusion on who to contact and where the source is to be found. If a high-complexity system is a necessity, tools and guidelines need to be up-to-date and concrete so that no valuable

knowledge is fumbled away. Further, it is beneficial for HQ to be accommodating to the normative environment of the subsidiary country to retrieve more local knowledge. One example of this is having more one-on-one meetings with Asian emerging market subsidiaries' employees as they tend to not speak up as much in group situations as in European countries. This could be made either face-to-face or by digital communication tools. For reverse knowledge flows, the utilization of these formal communication tools is important since it is through these that a majority of knowledge is stored and transferred.

Another feature that is important to understand is to weigh the decision on to what extent local languages should be allowed at an office that does not speak the MNC language on a native level. The strength of colleagues using their native language is not to be underestimated, as they become more willing to speak up and share knowledge that might be crucial for the business. If a strongly monolingual MNC environment is in place, being aware of the hidden costs of translation and lack of comprehension between offices needs to be accounted for.

Managers from the subsidiaries should think of how they communicate feedback and new insights to their HQs, as it could fall on idle ears if not presented as constructive or relevant to the whole organization. With a more constructive mindset, the HQ is more likely to be willing to utilize the knowledge that the subsidiary manager shares and reward the subsidiary with its attention.

Lastly, expatriate usage gains valuable practical insights from working in another office and is strongly encouraged for the flow of knowledge between subsidiary and HQ. However, HQ managers need to take care of the ones repatriating from foreign subsidiaries, otherwise the knowledge gained in the subsidiary emerging market region will diminish.

6.4 Limitations

A main limitation in this study is that it solely includes certain drivers and factors that were identified, as there are plenty of other drivers and factors which could cause and affect reverse knowledge flows. Some factors were more theoretically supported than others prior to the study – e.g., spatial distance in comparison to expatriates –, which caused an uneven distribution of research breadth between the factors. This study chose to limit the amount to

some interesting features which are distinct from each other. Furthermore, this study limited its inclusion of informal communication channels to expatriates as it was deemed to have enough relevance to be its own factor. This study has also been limited to the relationship between HQ and its subsidiary and does not research the lateral relationship between two subsidiaries within the same MNC.

A limitation of the research question is that it is fairly broad in that there are a multitude of drivers and factors that could affect reverse knowledge flows from emerging market subsidiaries. We addressed this by acknowledging that the drivers and factors are solely the ones that we identified as distinctly important for the phenomenon. However, an even more specific problem formulation in which a single factor was investigated could have yielded deeper findings.

In regards to case sampling, this study is limited by using predominantly Swedish MNCs with solely one MNC with its origin in France. Other nationalities of the case companies could have been interesting to provide further depth of comparison between environment contrasts. The MNCs that the interviewees worked at were limited to the business network that was created through the study, and therefore no other MNC was included. The subsidiaries were limited to emerging markets in Asia, and therefore all other emerging markets in other continents were excluded from this study.

6.5 Future research

Some of the findings in this study are relevant and interesting for future research to develop. First, the utilized drivers focused on the subsidiaries' assumption of HQs' problemistic search and absorptive capacity. In future research, it would be interesting to research additional drivers that contain more agency for subsidiaries, such as subsidiaries' capacity to share knowledge to HQ.

As there are more factors which could unfold reverse knowledge flows, it would be interesting to increase this study´s revised theoretical framework to give an even more extensive perspective of which drivers and factors to include. Factors that could be interesting to implement in another study could be the second half of the institutional duality model

(Kostova and Roth, 2002), the relational context, and if the internal factors which are brought up could affect reverse knowledge flows.

Next, it would be interesting to investigate if there are any similarities or differences between the reverse knowledge flows from subsidiaries to HQ compared to lateral knowledge flows between subsidiaries. Indeed, comparing other emerging market subsidiaries, such as African emerging markets, would add extra strength to the revised theoretical framework as the comparison of emerging market subsidiaries´ locations would then be analyzed.

As this is a qualitative study, a quantitative study on the same topic, drivers, and factors would be beneficial to increase the understanding. A more explicit analysis of the correlations between factors and reverse knowledge flows would be of great interest. Lastly, in another study of the same factors, it would be insightful to focus on whether they affect the quality or the quantity of reverse knowledge flows.

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Appendix 1 - Interview guide

Intro questions

- What is your role in the organization and responsibilities? How long have you been working at the company?
- What is the corporate structure of the company at large? How is the subsidiary office set up?

Communication

- How do you communicate within the company regional structure?
- How do you at your subsidiary communicate with HQ?
    - Do you have any specific communication channels? What frequency?
- How is the knowledge that is created in your subsidiary transferred to HQ?
    - Do you have any global platforms, or knowledge transfer meetings with HQ where you get the opportunity to share the knowledge?
- Do you have any expatriate exchange between the offices? How do they work?

Reverse flow of knowledge

- What are the main obstacles to transfer knowledge to HQ?
- Do you share all of your knowledge with HQ?
    - Do you think employees/individuals have knowledge that they won't share with the rest of the organization, both at subsidiary level, and globally.

Autonomy

- Is your company decision-making centralized or decentralized? Both globally and in your subsidiary.
- What role does autonomy play within the company corporate structure? How autonomous are you at your subsidiary?
    - Do all your subsidiary departments have the same autonomy level?
- What is the implication of the fact that you are an emerging market subsidiary for your autonomy?

Absorptive capacity

- How do you think HQ utilizes the information they receive from your subsidiary?

Institutional profile

- What are some regulatory differences between your subsidiary and HQ?
    - How does this affect your knowledge flows with HQ?
- Are there any cultural differences in terms of beliefs and how to act between your subsidiary and HQ?

Language

- What is the business language within your company?
    - Does HQ talk in their native language to each other, or do they communicate in English as well?
    - What language do you communicate with at your subsidiary?

Spatial distance

- How does the geographical distance between your subsidiary and HQ affect your relationship and knowledge sharing?

Expatriates

- Do you have expatriates from HQ at your subsidiary?
- Do you have expatriates from your subsidiary at HQ?
    - How do you think the expatriates affect knowledge flows, and why?

Appendix 2 - Thematic Coding Nvivo

Name of coding	No. of interviewees	Total no. of quotes
About the firms	13	39
Not specific drivers/factors, good to have	6	8
Problemistic search	11	51
Absorptive capacity	11	56
Institutional profile	13	65
Language	13	55
Spatial distance	14	36
Autonomy	14	94
Formal communication methods	14	138
Expatriates	13	51