

ALEKSI NIITTYMIES

# The Cognitive Foundations of Firm Internationalization



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ACADEMIC DISSERTATION

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# ACADEMIC DISSERTATION

Tampere University, Faculty of Management and Business  
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## Forewords and acknowledgements

What an amazing journey it has been. I met many new and inspiring people, gained a bunch of new friends, got to visit new places, and experienced the joy of major revisions, minor revisions, and accepted manuscripts. To be honest, I did not know that working in academia and doing research would be so fun.

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Graduation and getting PhD is undeniably cool, but it was never really my goal—ok, admittedly, maybe a bit to get the sword. I just like doing research and pursuing dashing research papers, and that is not over. In fact, I am just getting warmed up.

Aleksi Niittymies  
November 2021  
Tampere, Finland

# Abstract

Individual managers and their cognitions play a crucial role in how a firm's internationalization process unfolds over time. While this is acknowledged in foundational theories of firm internationalization, our understanding of how managers and their cognitions shape the internationalization process remains surprisingly incomplete. This is because prior literature on firm internationalization mainly operates at the firm, industry, or national levels and assumes a relatively high level of managerial rationality, with few studies focusing on how managers and their decision-making processes shape firm internationalization. In addition, the studies that have addressed the cognitive foundations of firm internationalization have done so by drawing on a relatively narrow set of philosophical and methodological alternatives, thus generating a one-sided understanding of the matter. Consequently, scholarship on decision makers' roles in firms' internationalization processes remains underspecified and incomplete, which hampers the field's capacity to fully understand firms' international operations. This dissertation aims to unpack the black box of managers' roles in firm internationalization processes by investigating how cognitive foundations influence firm internationalization and showing how we can further advance the research on the cognitive foundations of firm internationalization in the future.

The dissertation approaches these questions through two review studies and two case studies that explore the cognitive foundations of firm internationalization from different perspectives. The first review study investigates the current state of the research field by describing the research domains that have been studied and those that have been underexplored and thus provides an integrative understanding of the research on the cognitive foundations of firms' internationalization processes. The second review study explores how the existing literature has approached the cognitive differences that stem from decision makers' cultural, national, ethnical, and geographical characteristics and the influence that such differences have on firm internationalization processes and integrates these findings into the broader literature on managerial and organizational cognition. The first case study examines heuristic decision-making in firm internationalization and the role

of context-specific experience in this process. It advances a theoretical model indicating that managers become able to harness the positive impact of heuristics in internationalization-related decision-making only after they have accumulated a certain level of context-specific experience and when this experience is triggered to transform into usable heuristics by a stimulus of an unexpected event. The second case study explores how different historical approaches can be used to analyze the temporal embeddedness of firms' internationalization and de-internationalization processes unfolding over time.

This dissertation contributes to the literature on the cognitive foundations of firm internationalization in two ways. First, it improves the existing understanding of how cognitive foundations shape firm internationalization by reviewing the existing literature to generate integrative understanding of the topic and by empirically explicating novel ways of how cognitions drive internationalization via three philosophical perspectives—qualitative positivism, interpretivism, and poststructuralism. Second, it outlines ways to further advance the research on the cognitive foundations of firm internationalization by pointing out the research gaps that warrant further attention and by proposing that subjective approaches, historical research methods, and the microfoundational approach constitute productive avenues for future research.

**Keywords:** internationalization, cognition, decision-making, qualitative methodology, historical research methods, microfoundations



## Tiivistelmä

Johtajat ja heidän kognitiot ovat kriittisessä roolissa yrityksen kansainvälistymisprosessissa ja sen muotoutumisessa ajan myötä. Vaikka keskeisimmät kansainvälistymistä koskevat teoriat tiedostavat tämän, ymmärrys ja aiempi tutkimus johtajien ja heidän kognitioiden roolista yrityksen kansainvälistymisprosessissa on yllättävän vähäistä. Aikaisempi tutkimus on keskittynyt tarkastelemaan yrityksen kansainvälistymisprosesseja erityisesti yrityksen ja toimialan tasoilla. Johtajat on nähty rationaalisina toimijoina eikä päätöksentekoa olla nähty merkityksellisenä osana yritysten kansainvälistymisprosesseja. Tutkimukset, jotka ovat huomioineet johtajien päätöksenteon roolin, ovat lähestyneet kysymystä hyvin rajallisista tieteenfilosofisista ja metodologisista lähtökohdista. Tämä on johtanut kapeaan ja yksipuoliseen ymmärrykseen aiheesta, minkä vuoksi päätöksentekijöiden rooli on jäänyt epäselväksi. Puutteellinen ymmärrys päätöksentekijöiden roolista vaikeuttaa yrityksen kansainvälistymisprosessin ymmärtämistä kokonaisuutena, koska kansainvälistymisprosessia ohjaavat päätökset syntyvät lopulta aina johtajien toimesta.

Tämä väitöskirja pyrkii avaamaan johtajien päätöksentekoprosessien roolia yrityksen kansainvälistymisessä ensiksi tutkimalla, kuinka kognitiiviset perustat vaikuttavat yrityksen kansainvälistymiseen ja toiseksi esittämällä keinoja, kuinka yrityksen kansainvälistymisen kognitiivisia perustoita voidaan tutkia tulevaisuudessa entistä paremmin. Näitä kysymyksiä lähestytään hyödyntämällä kahden kirjallisuuskatsauksen ja kahden tapaustutkimuksen tuloksia, jotka tarkastelevat yrityksen kansainvälistymisen kognitiivisia perustoita erilaisista teoreettisista tulokulmista.

Ensimmäinen kirjallisuuskatsaus avaa kognitiivisesti suuntautuneen kansainvälistymistutkimuksen tilaa selvittämällä sekä tutkittuja että vähemmälle huomiolle jääneitä tutkimusalueita näin luoden yhtenäisempää ymmärrystä aiheesta. Toinen kirjallisuuskatsaus tutkii, miten aikaisempi kirjallisuus kansainvälisestä liiketoiminnasta on tarkastellut niitä kognitiivisia eroja, jotka nousevat johtajien kulttuurillisista, kansallisista, etnisistä ja geografisista taustatekijöistä. Kirjallisuuskatsaus integroi nämä löydökset osaksi laajempaan johtajien ja organisaatioiden kognitioihin liittyvää kirjallisuutta. Väitöskirjan ensimmäi-

nen tapaustutkimus tarkastelee heuristisen päätöksenteon kehittymistä yrityksen kansainvälistymisen aikana sekä kontekstisidonnaisen kokemuksen roolia tässä prosessissa. Tutkimuksen löydökset osoittavat, että johtajat pystyvät valjastamaan heuristiikkojen hyödyt päätöksenteossa vasta, kun he ovat kerryttäneet riittävän määrän kontekstisidonnaista kokemusta ja kun sopiva ärsyke laukaisee kertyneen kokemuksen muutoksen käyttökelpoiksi heuristiikoiksi. Toinen tapaustutkimus puolestaan käsittelee eri historian tutkimuksen menetelmien hyödyntämistä yritysten kansainvälistymisprosessien ja markkinoilta poistumisen temporaalisuuden ymmärtämisessä ja tutkimisessa.

Tämä väitöskirja edistää kognitiivisesti suuntautunutta yrityksen kansainvälistymiskirjallisuutta laaja-alaisesti. Se syventää ymmärrystä siitä, miten johtajien kognitiot muovaavat yrityksen kansainvälistymistä organisoimalla ja tuomalla yhteen aikaisemman tutkimuksen löydöksiä. Erilaisia tieteenfilosofisia tulokulmia hyödyntävät tapaustutkimukset puolestaan edistävät tutkimusta tuomalla esiin uusia piirteitä kognitioiden roolista yrityksen kansainvälistymisessä. Tämän lisäksi väitöskirja tarjoaa jatkotutkimukselle ideoita ja keinoja edistää alan tutkimusta tuomalla esiin kehityskohteita nykyisessä ymmärryksessä sekä havainnollistamalla, kuinka (1) subjektiiviset tutkimusotteet, (2) historialliset tutkimusmenetelmät ja (3) mikroperusteinen tulokulma tarjoavat hyödyntämättömiä mahdollisuuksia edistää alan tutkimusta.

**Avainsanat:** yrityksen kansainvälistyminen, kognitio, päätöksenteko, laadulliset tutkimusmenetelmät, historialliset tutkimusmenetelmät, mikroperusteet

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## List of publications

This dissertation is based on the following articles:

- Article I     Niittymies, A., & Pajunen, K. 2020. Cognitive foundations of firm internationalization: A systematic review and agenda for future research. *International Business Review*, 29(4), 101654.
- Article II     Niittymies, A. (2021). Studying cognition through decision-makers' characteristics: Insights from international business research", in R. J. Galavan & K. J. Sund (Eds), *Thinking about Cognition (New Horizons in Managerial and Organizational Cognition, Vol. 5)* (pp. 103–115). Bingley, UK: Emerald Publishing.
- Article III    Niittymies, A. 2020. Heuristic decision-making in firm internationalization: The influence of context-specific experience. *International Business Review*, 29(6), 101752.
- Article IV    Niittymies, A., Pajunen, K., & Lamberg, J-A. Temporality and firm de-internationalization: Three historical approaches. Manuscript submitted for publication.

## Author's Contribution

Article I: I was responsible for the study's design, data collection and analysis, and writing of the early version of the manuscript. My co-author, Professor Pajunen, provided help and guidance in every phase of the research throughout the project and closely participated in the revision process and writing of the final version of the paper.

Article II: I was the sole author of the study.

Article III: I was the sole author of the paper. However, Professor Pajunen provided guidance and insightful comments on the article.

Article IV: I was largely responsible for putting together the early version of the manuscript. The data used in the study was collected by my co-author, Professor Pajunen. In the revision process, all three authors contributed substantially to the ideation, new analyses, and rewriting of the paper.



# Introduction

## Research background and purpose

For a field named “management,” it is odd how little of our focus is on “managers,” whether at the frontline, middle, or executive level, or at the organizational, geographic, or global level. Today, more than ever, our research and teaching are called on to shape what managers do on a day-to-day basis. We are the Academy of Management and yet it isn’t always clear how our research addresses issues confronting practicing managers. The tenor of our time suggests that seeking to help managers deal with the issues confronting them would be a valuable contribution to the world we live in.

–Amy Hillman, 81st Academy of Management Annual Meeting

In recent decades, scholars have become increasingly interested in individual managers and their decisions regarding firms’ internationalization processes (e.g., Azam, Boari, & Bertolotti, 2018; Clark, Li, & Shepherd, 2018). Despite the economics-based heritage of the international business research field, cognitive foundations are being increasingly treated as the *primus motor* of firms’ internationalization decisions. Cognitive foundations refer to managers’ cognitive structures and processes as well as the activities related to using or altering these structures and processes, such as perceiving, understanding, reasoning, and learning (e.g., Helfat & Peteraf, 2015). Cognitive structures, processes, and activities are crucial in firms’ international expansion efforts because they underpin managers’ decision-making processes to do with the location, entry mode, timing, and commitment and control choices, all of which dictate how the internationalization processes will eventually unfold (e.g., Aharoni, Tihanyi, & Connelly, 2011; Jones & Casulli, 2014). Prior research has shown that cognitions play a central role in understanding foreign markets (e.g., Maitland & Sammartino, 2015a), learning from and capitalizing on prior experience (Jones

& Casulli, 2014), and recognizing and seizing novel opportunities in the international context (Sarasvathy, Kumar, York, & Bhagavatula, 2014).

Cognitive foundations occupy a privileged position in firms' internationalization processes because decision makers deal with multinational decision-making environments that are often complex, uncertain, and characterized by large amounts of diverse and potentially conflicting information (e.g., Prashantham & Floyd, 2012). Therefore, internationalization-related decision-making is often described as requiring substantial information processing abilities from the individual managers making the decisions (e.g., Azam et al., 2018). In fact, the information processing requirements needed to fully comprehend the decision-making environment often exceed the limitations of individuals' cognitive capabilities (e.g., Simon, 1947; March & Simon, 1958), which forces managers to operate based on a partial understanding of the situation (e.g., Bingham & Eisenhardt, 2011). As this partial understanding is developed based on managers' unique and individual cognitions, internationalization choices are highly dependent on managers' cognitions.

Managers' cognitions vary significantly because cognitions develop over time and become more efficient as experience is accumulated across similar situations (e.g., Azam et al., 2018; Bingham & Eisenhardt, 2011). Thus, cognitive development and the elements necessary for such development, such as experience, play a critical role in explaining managers' complex decision-making processes and the resulting organizational activity (e.g., Jones & Casulli, 2014). As firm internationalization processes unfold over time and emerge from sequences of interrelated and path-dependent decisions (e.g., Welch & Paavilainen-Mäntymäki, 2014), the cognitive developments related to these decisions shape how the decision sequences or processes unfold.

However, despite the recently increased interest in understanding firms' internationalization processes at the level of individuals, the majority of the internationalization research operates at the firm, industry, or national levels and assumes a relatively high level of managerial rationality, while research on how managers and their cognitive capabilities and limitations shape firm internationalization remains scarce (e.g., Aharoni et al., 2011; Zucchella, 2021). This tendency to favor assumptions about rational decision makers and analytical levels above managers is conditioned by the history and evolution of international business research. The field has evolved from the economics-based research tradition and its interest in explaining countries' investment flows and production logics (e.g., Dunning, 2001; Buckley, 2002), in which individual managers and their specific forms of cognition are traditionally overlooked to focus on the larger picture. This approach is understandable in economics research that deals with higher analytical levels, but when it comes to explaining a firm's internationalization process, this approach results in inadequate explanations. In other words, while research at higher analytical levels can explain a phenomenon to some degree, it fails to grasp the root causes of the phenomenon (e.g., Foss & Pedersen, 2016). Therefore, the tendency to explore firm internationalization at higher analytical levels is problematic because, in the end, all choices that shape the internationalization process are

made at the level of individual managers (e.g., Felin, Foss, & Ployhart, 2015). Consequently, the first problematic issue in the existing literature is the shortage of research on managers and their cognitions. For instance, Maitland and Sammartino (2015b: 733) stated that “the boundedly rational decision-maker is underspecified in international business models and this oversight contributes to weak empirical findings on experience, learning, internationalization strategy and MNE performance.” However, as Amy Hillman pointed out in setting the theme for the 81st Academy of Management Annual Meeting, turning the focus on actual managers behind decisions is a critical and much-needed undertaking that would help scholars to better understand and address managers’ actual realities and challenges.

The second problematic issue in the existing literature is that while recent internationalization research drawing on psychology-oriented management research has shown that managers and their cognitive processes play an important role in the emergence of the internationalization process (e.g., Bingham, 2009; Coviello, Kano, & Liesch, 2017), the literature on cognitive foundations of firm internationalization is fragmented and unorganized. That is, the concept of cognition refers to many different aspects, constructs, and processes related to decision-making and behavior. For instance, learning, knowledge, attention, judgment, and sensemaking can be all placed under the umbrella of “cognition” (e.g., Kaplan, 2011; Helfat & Peteraf, 2015). As a result, cognition and its role in firm internationalization have been studied in many ways and from different perspectives. While this can be seen to reflect the richness and vitality of the research field, it can also create challenges for cumulative knowledge building. Furthermore, as the field is relatively new and rapidly growing, its acquired knowledge has not been systematically organized through reviews, which has hindered the development of the field (e.g., Paul & Rialp-Criado, 2020).

The third problematic issue in the existing literature is that methodological options have been restricted and heavily guided by the disciplinary conventions of international business research, which are driven by qualitative positivist assumptions whereby reality is considered objective and external to the researcher, something that can be observed and studied separately from the interpreters’ subjective understandings of this reality (e.g., Piekkari, Welch, & Paavilainen, 2009). International business research has suffered from the “scholarly rigorous” ways of forcing qualitative research to match the requirements of quantitative research (e.g., Pratt, 2008; Welch & Piekkari, 2017), which have had a significant impact on what is viewed as legitimate ways of conducting and reporting research. According to Nielsen et al., (2020), reliance on a narrow set of philosophical paradigms or methodological alternatives increases the risk of biases and errors and can lead to a partial understanding of the studied phenomenon due to the limitations of the selected approaches. Therefore, capturing the overwhelming complexity of the world requires the use of multiple perspectives (e.g., Kellert, Longino, & Waters, 2006). Consequently, the field of international business research, including cognitively oriented internationalization research, is in a need of new methodological initiatives.

Overall, research on the cognitive foundations of firm internationalization has been gaining momentum over the last decade, but, due to the paucity of research on managers, the fragmentation of the field, and the field's philosophical and methodological one-sidedness, the overall understanding of how cognitive foundations shape firms' internationalization processes remain poor. Therefore, the purpose of this dissertation is to advance the research on the cognitive foundations of firm internationalization. To accomplish this goal, the dissertation tackles the following two research questions (RQs):

1. RQ1: How do cognitive foundations influence firm internationalization?
2. RQ2: How can we further advance the research on the cognitive foundations of firm internationalization?

## Research approach: The research articles and their roles

This dissertation aims to answer the two RQs via four independent research articles. The articles accomplish the dissertation's overall goal by systematically reviewing state-of-the-art research, conducting original empirical research, and developing directions and methodological guidelines for future research. Table 1 provides an overview of the four articles and their roles in answering the RQs. Next, I will briefly summarize the articles and their purpose in this dissertation.

Table 1. The dissertation's articles and their role in answering the research questions

Article	Title	Role in answering the research questions
<b>I: Review 1</b>	Cognitive foundations of firm internationalization: A systematic review and agenda for future research	<p>RQ1: The article provides an integrative understanding of how cognitive foundations shape firm internationalization.</p> <p>RQ2: The article proposes potential domains for future research and develops methodological guidelines. In particular, the article suggests that a further focus on individual managers and their cognitive processes would create interesting avenues for future research and that a microfoundational perspective constitutes an apt approach for examining individual managers and their roles in firm internationalization.</p>
<b>II: Review 2</b>	Studying cognition through decision makers' characteristics: Insights from international business research	<p>RQ1: The article explores how the existing literature has addressed cognitive differences stemming from decision makers' cultural, national, ethnical, and geographical characteristics and how such characteristics influence firm internationalization.</p> <p>RQ2: The article provides directions for future research by revealing underemphasized areas in the upper echelons-oriented internationalization research.</p>
<b>III: Empirical case study 1</b>	Heuristic decision-making in firm internationalization: The influence of context-specific experience	<p>RQ1: The article explicates novel mechanisms related to the development of heuristic decision-making in firm internationalization and the role of context-specific experience in this process.</p>
<b>IV: Empirical case study 2</b>	Temporality and firm de-internationalization: Three historical approaches	<p>RQ1: The article produces novel insights related to managers' cognitions' role in firm internationalization, especially in de-internationalization, through different philosophical lenses.</p> <p>RQ2: By discussing and empirically elaborating the use of historical research approaches based on different philosophical orientations in capturing temporality in internationalization and de-internationalization research, the article provides tools and identifies novel opportunities for exploring temporal embeddedness of managers' cognitions in firms' internationalization processes.</p>

The first of the four articles is a systematic literature review that charts the existing understanding of the cognitive foundations of firm internationalization. The review's purpose was to establish the field's situation because the field is relatively new and unorganized, and prior review studies do not exist. The study reviewed 138 cognition-oriented internationalization articles from highly regarded journals. The findings answer RQ<sub>1</sub> by identifying three major research streams on the cognitive foundations of firm internationalization and nine more specific research areas. The article answers RQ<sub>2</sub> by presenting directions for future cognition-oriented research on internationalization by revealing that managers and their cognitive processes, such as learning and knowledge

development, were under-researched, which is surprising given that cognitive research is built on assumptions about individual managers and their cognitive processes, and by stating that the microfoundational approach provides interesting opportunities for advancing the field.

While the first review aspired to broadly understand the state of the cognitive internationalization research and accentuated the need to emphasize individual managers in future research, the second review study adopted a much more specific focus by looking at research on cognitive differences that stem from decision makers' cultural, national, ethnical, and geographical characteristics and how such characteristics influence firm internationalization. The article answers RQ<sub>1</sub> by providing a synthesis of prior research and showing that this research has generated insights into (1) cognitive distances, (2) cognitive structures, (3) the home country's legacy, and (4) tolerance of cognitive differences. The article answers RQ<sub>2</sub> by revealing underemphasized research domains: while much of the existing research focuses on managers' cognitive differences and their influence on firm internationalization, different ways of coping with the tensions that arise from such differences are less explored.

The first empirical case study addressed individual managers' cognitions and their development during internationalization. In particular, the study inspected the first internationalization processes of two small and medium sized-enterprises (SMEs) and studied managers' development of heuristic decision-making capabilities and the influence of experience in this process. The findings answered RQ<sub>1</sub> by revealing novel mechanisms related to the development of managers' cognitions—more specifically, the findings showed that while context-specific experience is required for the construction of usable heuristics, such experience does not automatically translate into heuristics; instead, this kind of transformation requires a triggering stimulus, which, in both cases, was the failure of the initial internationalization plans.

The final article discussed and empirically depicted how three historical research approaches based on different philosophical orientations can be used to explore the temporality of firm de-internationalization. Through the empirical elaborations, the article answers RQ<sub>1</sub> by pointing out new ways how managers' cognitions shape firms' internationalization processes via different philosophical lenses. The article answers RQ<sub>2</sub> by introducing diverse historical research approaches, empirically demonstrating their explanatory potential, and, in turn, providing guidelines for using different historical approaches to further explore temporality of firm internationalization process and the managers' cognitions' temporally embedded and potentially path-dependent role in this process.

## Contributions

This dissertation argues that research on firm internationalization should focus on individual managers and their cognitions to better understand firms' internationalization processes and managers' actual realities and challenges during international expansion efforts. To accomplish this goal, the dissertation explores the cognitive foundations of firm internationalization and contributes to the literature by (1) explicating the ways in which cognitive foundations shape firm internationalization and (2) developing guidelines for advancing research on the cognitive foundations of internationalization in the future. I believe that these contributions can advance internationalization research in a broader sense as well, which is why I also discuss how the findings contribute to the Uppsala-based understanding of firm internationalization, the most influential paradigm guiding internationalization research (e.g., Håkanson & Kappen, 2017).

First, I advance the existing understanding of how cognitive foundations shape firm internationalization by organizing and synthesizing the existing research to provide a more coherent understanding of the state-of-the-art knowledge on the topic, which is important because developed knowledge must be actively organized to be exploited by scholars and practicing managers (e.g., Paul & Rialp-Criado, 2020). I also advance the understanding of cognitions role in firm internationalization by providing a more versatile and richer understanding of the role played by managers' cognitions in firm internationalization by inspecting the topic from multiple philosophical perspectives (e.g., Nielsen et al., 2020). This is an important contribution because prior research has been relatively one-sided in terms of philosophical approaches and has mainly inspected the topic from positivistic perspectives (e.g., Lundgren & Jansson, 2016; Welch & Piekkari, 2017). Using a qualitative positivist perspective, I reveal new mechanisms related to the function of experience in the development of cognitive capabilities and the mediating role of negative stimuli in this process. Using an interpretive perspective, I increase understanding of why decision makers end up making certain choices and how their interpretations of their information environments shape their decision-making processes. Using a poststructuralist perspective, I uncover how underlying cognitive foundations influence firms' internationalization processes by viewing managers as strongly subjective actors, whose choices can be greatly shaped by seemingly irrelevant experiences from their past and by their unique characters and personalities.

Second, I provide ways to further advance the research on the cognitive foundations of firm internationalization by (1) pointing out research gaps that warrant further attention and (2) providing philosophical and methodological alternatives for studying the managers' cognitions that underpin firm internationalization. A better understanding of underemphasized domains and research gaps advances the cognitively oriented internationalization research by speeding up knowledge building because such domains and gaps serve as a solid base or even as a springboard for future research (Paul & Rialp-Criado, 2020). Setting up philosophical and methodological guidelines for future research



can significantly contribute to the development of cognitively oriented internationalization research because this field has been traditionally drawn from a relatively narrow set of philosophical and methodological alternatives (e.g., Welch & Piekkari, 2017; Nielsen et al., 2020). In particular, I propose that approaches drawing on more subjective assumptions, historical research methods, and the microfoundational approach constitute new opportunities for further advancing cognitively oriented internationalization research. With respect to the subjective approaches, I explain how the interpretive perspective can deepen our understanding of the influence that contextual dynamics and managers' personal interpretations of them have in shaping internationalization decisions. The poststructuralist perspective, according to which reality is socially constructed and greatly influenced by the experiences accumulated over a lifetime, provides further insights into the subjective aspects of decision-making and enables critical questioning of the existing understandings regarding firm internationalization, thus potentially revealing underlying issues and controversies that may require further investigation. The historical research approaches offer novel ways to explore the decision-making process over time as an interplay of decision makers, their characteristics, and contextual factors. In particular, the historical approaches provide tools for further understanding time, the role of past, and temporally embedded contextual drivers that influence firm internationalization. The microfoundational perspective provides tools for revealing the micro mechanisms and causal structures related to the role of managers' cognitions in the internationalization process. This perspective allows us to model, across multiple analytical levels, how firm internationalization is shaped by decisions that emerge at the level of individual managers but are, at the same time, influenced by higher analytical levels, such as the firm, industry, and society levels (e.g., Felin et al., 2015).

## Discussion of quality criteria

This dissertation draws on different philosophical paradigms and methodological approaches to qualitative research. This inevitably raises questions about how to evaluate such research. If the research is based on different, potentially incommensurable, approaches, which standards should be used to evaluate the research, and what are these standards? The answer to this question should not be searched from listings of static evaluation criteria because it is impossible to define a single set of best practices for evaluating qualitative research due to the diversity of the used approaches; instead, the criteria for good qualitative research are highly dependent on the philosophical assumptions that underlie the chosen approach (e.g., Easterby-Smith, Golden-Biddle, & Locke, 2008; Piekkari, Plakoyiannaki, & Welch, 2010). According to Barker and Pistrang (2005), there are quality criteria that apply to all qualitative research and those that apply to more specific approaches used in qualitative research, and they should be used together in evaluating pluralist research. By aptly using an analogy from music to make their point, they explain that music can be



divided into different genres such as rock, classical, jazz, and so on and that we can easily see the existence of multiple criteria for evaluating different types of music. Certain criteria can be applied to all genres such as rhythm and pitch, but there are also very genre-specific quality criteria that can sometimes be even contradictory. For instance, staying on the beat is important in classical but not in jazz.

Similarly, I view that, in this dissertation, the pieces of research based on different philosophical orientations should be evaluated based on their own merits; pluralism allows us to appreciate different types of research by accepting that they can be evaluated, and valued, based on fitting criteria. In practice, this means that the analyses and findings produced through qualitative positivist lenses should be understood against the quality criteria of qualitative positivism whereas findings generated through poststructuralist lenses should be evaluated by using criteria suitable for poststructuralist research, and so on.

I recognize that this requires that the reader is well-versed in the different methodological and philosophical orientations, which might not always be the case. Therefore, I have followed principles of (1) transparency, (2) disclosure of underlying philosophical assumptions, and (3) discussion of (in)commensurability to make the research process, findings, and conclusions more understandable and easier to evaluate. By being transparent, I mean that I have strived to be truthful to the “messy” nature of qualitative research and transparently reported the methodological decisions and how the research process unfolded so that the reader can follow and evaluate the process and consequent findings (e.g., Piekkari et al., 2010). By disclosing the underlying philosophical assumptions, I mean that I have carefully explained the underlying philosophical assumptions of the used research approaches because they have a notable impact on the analysis techniques and the resulting findings and conclusions. This enables the reader to better understand the differences of the used approaches and generate more accurate evaluations of the analyses and findings. Finally, I have commented on the (in)commensurability of the knowledge generated through different research approaches to explain that the findings should not be understood similarly as they are based on different assumptions of reality and the nature of knowledge. Indeed, the findings can help us to understand the same empirical phenomenon, but they should not be theoretically mixed or combined due to the inherent differences. Altogether, by incorporating these principles into the dissertation, I have provided assistance and tools for the reader to better evaluate the findings and the overall contribution of the dissertation.

## Outline of the dissertation

In Chapter 2, I outline the dissertation’s theoretical background by reviewing the relevant prior research on firm internationalization and its cognitive foundations. The chapter first examines the research on firm internationalization and explains why and how firms seek to expand to foreign countries and how this research stream has developed over time. Then, the chapter reviews prior research on the cognitive foundations of firm internationalization,

focusing especially on the role of cognition in managerial decision-making and on how managers' cognitions have been studied in the field. In Chapter 3, I explain my dissertation's philosophical assumptions and methodological choices. More specifically, the chapter begins with a discussion of the philosophical assumptions that guide the subsequent methodological choices. This is followed by a detailed description and discussion of the research strategies and methodological approaches used in the articles. In Chapter 4, I summarize the four articles on which this dissertation is based. Finally, in Chapter 5, I discuss how my dissertation advances the current understanding of and future research on the cognitive foundations of firm internationalization and how the generated insights relate to the broader Uppsala-based understanding of firm internationalization, as it is the most dominant paradigm guiding research on firm internationalization (e.g., Håkason & Kappen, 2017). I conclude the dissertation by considering its implications for practicing managers.

# Theoretical background

## Firm internationalization: Evolution of thought

Firm internationalization refers to the “geographical expansion of economic activities over a national country’s border” (Ruzzier, Hisrich, & Antoncic, 2006: 477). While the concept of firm internationalization replaced imperialism as a way of framing cross-border organizational activity before the Second World War, the concept truly took off after the war, when industrial cooperation between countries began to grow rapidly and demanded new explanations (Dunning, 2001; Ruzzier et al., 2006). According to Buckley (2002), internationalization research originated from the need to explain foreign direct investment flows after the Second World War, when businesses started to engage in multinational operations, but the traditional economics-based theories failed to explain the new multinational enterprises and their international operations. The early seminal works by Hymer (1976), Vernon (1966), and Dunning (1958) specifically aimed to explain foreign direct investment flows. The early works argued that internationalization is based on the advantages that can be transferred across national borders and the advantages that can be derived from foreign locations (Dunning, 2001; Buckley, 2002). Hymer’s work (1976)—based on Dunning’s (1958) seminal work on US-based foreign direct investments in the UK—was especially important as it was, arguably, responsible for the breakthrough in parting from the economics-based view by introducing the concept of competitive advantage in the form of internally transferable firm-specific assets (e.g., Buckley, 2002). The central premise of Hymer (1976) was that international firms expanding to foreign markets must have unique sources of advantages that can be transferred to foreign locations, allowing entrants to outmatch local firms, which would otherwise have natural advantages in their domestic markets. (e.g., Buckley, 2002; Ruzzier et al., 2006). These ideas eventually developed into the influential OLI model composed by John Dunning (1979), which

explains firm internationalization via the added value that can be achieved by means of the advantages emerging from ownership (O), location (L), and internalization (I).

Firm internationalization is also conceptualized as a firm's state of being that evolves over time: firms are said to expand and develop toward increased commitment and involvement in international activities, but the process can also go backward and lead to decreased involvement in international activities (Ruzzier et al., 2006). This perspective largely stems from the work on the Uppsala model, which represents a major step in internationalization research. Research on the Uppsala model conceptualized firm internationalization as incremental, gradual, and stage-by-stage development, whereby firms increase their presence and investments in foreign markets over time (Buckley, 2002). The Uppsala model (e.g., Johanson & Vahlne, 1977) describes internationalization as a set of stages, according to which firms start their internationalization with entry modes that require low commitments and with location choices that are similar to the firms' home markets; however, as the firms learn during the internationalization process, they start perceiving decreased psychic distance and uncertainty, which allow them to make bolder choices regarding locations and entry modes. The model, therefore, describes a path from exporting to joint-ventures and finally to foreign sales offices and manufacturing facilities and from favoring similar foreign markets to expanding to foreign markets that are very different compared to home markets. According to Håkanson and Kappen (2017), the Uppsala model has evolved from a model into a paradigm because, in its current form, it is too broad and abstract and is not based on causal relationships. This paradigmatic character has only increased the influence and applicability of the Uppsala-based understanding of firm internationalization; consequently, this understanding has become the dominant paradigm guiding internationalization research (e.g., Håkanson & Kappen, 2017).

By focusing on multinational operations rather than just cross-border activities between selected countries, internationalization research started to embrace a global perspective around the 1980s (e.g., Buckley, 2002). This change in perspective was caused by technological development, decreasing trade barriers and regulations, the opening of the former socialist countries, increasing global collaboration, and the increasing adoption of capitalism and market economy across the world (Buckley, 2002; Ruzzier et al., 2006). According to the global perspective, the international operations of firms were understood and managed on a global scale, and the business environment was characterized by "worldwide integration of ever more competitive markets and companies facing global competition" (Ruzzier et al., 2006: 477). The traditional process of producing tradeable goods in one location and exporting them to foreign markets was no longer adequate. Instead, economic activities became geographically dispersed yet highly integrated.

The role of SMEs is another important element of the global perspective in firm internationalization research. Scholars observed that SMEs internationalized rapidly without having the ability to derive advantages from their size or resources, which went against the traditional theories that used organizations' size and resources to explain firm

internationalization (e.g., Oviatt & McDougall, 1994; Ruzzier et al., 2006). SMEs were found to use unorthodox methods and to exploit entrepreneurial opportunities in their international expansion processes, which allowed them to offset their limitations (e.g., Cavusgil & Knight, 2015; Jones & Coviello, 2005). These findings indicated that some SMEs did not follow the logic of gradual internationalization models, as they expanded to international markets immediately upon their establishment or soon after (e.g., Oviatt & McDougall, 1994; Knight & Cavusgil, 2004; Kalinic & Forza, 2012), thus contesting the incremental or gradual nature of firms' internationalization process.

In the current millennium, I believe that the main trends and developments of internationalization research over the past two decades are conveniently reflected in the main revisions made to the Uppsala model. First, in their 2009 update, Johanson and Vahlne (2009) introduced the notion of networks into the revised version of the Uppsala model and provided two reasons why networks are a central resource in internationalization. First, they considered markets to be complex networks of firms in which insidership is necessary for successful internationalization while outsidership is a liability that needs to be overcome. Second, they treated networks as critical for learning and knowledge building, key preconditions for internationalization. This increased attention toward networks also reflects a broader trend in the internationalization research of turning from analyzing international activities to exploring the resources needed for internationalization; consequently, firm internationalization can be seen as a process of leveraging unique and interdependent resources to succeed in international activities (Ruzzier et al., 2006).

Second, in their 2017 update, Vahlne and Johanson (2017) introduced process ontology and expressed the need for longitudinal empirical research in studying internationalization. This development reflected a larger movement taking shape in the field, which emphasized the processual nature of the internationalization phenomenon (e.g., Welch, Nummela, & Liesch, 2016). According to Welch and Paavilainen-Mäntymäki (2014: 2), processual internationalization research considers internationalization to be a "multifaceted process that occurs over time, rather than consisting of a single set of decisions or discrete events." Consequently, to fully understand internationalization, it should be studied as a process that unfolds over time. This requires the use of process research methodology and would notably benefit from further understanding of time and temporality as they are central for explaining firms' internationalization processes, but their roles are implicit and taken-for-granted (Hurmerinta, Paavilainen-Mäntymäki, & Hassett, 2016). Examining firm internationalization as a process has allowed scholars to explore the previously underemphasized aspects of internationalization. For instance, recent research that approaches firm internationalization as a process has emphasized its nonlinear nature; instead of viewing internationalization as a linear and gradual progress, such studies pay special attention to how internationalization fluctuates and consists of series of entries and withdrawals as a natural part of the process (e.g., Vissak & Francioni, 2013).

Third, in one of their more recent works, Vahlne and Johanson (2020) have suggested that the Uppsala-based understanding of firm internationalization could be improved by focusing on managers' psychological characteristics. This also reflects an emerging trend in the field, as cognitively oriented internationalization research has been increasingly gaining attention over the last decade. However, our understanding of managers and their cognitions in firm internationalization remains relatively poor, and the topic requires closer examination. Thus, I will next turn the focus on cognitive internationalization research.

## The cognitive foundations of firm internationalization

Firm internationalization involves a series of decisions that are highly dependent on the cognitions of individual managers. According to Maitland and Sammartino (2015b), internationalization decisions depend on knowledge of locations, value propositions, operational aspects, overall opportunity, firm-specific advantages, capacity, and governance architecture, and through their cognitive processes, managers can search, assess, and integrate information about these knowledge domains when making strategic internationalization decisions. Therefore, in the recent internationalization literature, cognition is given central importance in the explanations of how managers and their behaviors impact organizational outcomes (e.g., Bingham & Eisenhardt, 2011; Prashantham & Floyd, 2019).

## The boundedly rational decision maker

The cognitive approach to firm internationalization rests on the seminal contributions of the Carnegie School, specifically on the latter's behavioral theory of the firm and the concept of bounded rationality (Simon, 1947; March & Simon, 1958; Cyert & March, 1963). Bounded rationality contests the idea of rational decision-making by claiming that all decisions are bounded by an individual's cognitive limits—for example, managers are incapable of understanding all relevant contingencies in their environments because their cognitive capabilities do not allow for a full comprehension of the surrounding environment (Simon, 1947; March & Simon, 1958). To cope with such incomprehensible complexity, managers create simplified cognitive representations of their environments, which they use in decision-making (e.g., Simon, 1991). Due to the difficulties in understanding all the necessary contingencies in their environments, managers do not pursue optimal decisions but rather settle for decisions that are good enough for the situation (Simon, 1947).

The boundedly rational decision maker is a critical concept for understanding strategic choices and the role of learning and experience in firm internationalization. This is because the impossibility of fully understanding a situation forces individual managers to construct interpretations and understandings of external reality within their own personal limitations (e.g., Walsh, 1995), with such constructs then functioning as a foundation for all decisions

and consequent actions. As a result, different cognitions lead to different interpretations of situations and, in turn, to different choices. Such variety in managers' decision-making processes indicates that investigating strategic choices during firm internationalization requires focusing on individual managers and their cognitions.

## Cognitive structures and processes

An individual's cognition is an overwhelmingly complex creation; therefore, scholars have developed a simplified view, according to which cognition is composed of knowledge structures and cognitive processes. Knowledge structures are static structures of organized knowledge that are related to individuals' understandings of external reality, whereas cognitive processes refer to dynamic processes, such as learning, knowing, remembering, and reasoning (e.g., Helfat & Peteraf, 2015). In reality, the two concepts are inseparably intertwined and work together, but the distinction makes the concept of cognition more approachable and makes it easier to study its various aspects.

According to Walsh (1995), knowledge structures are static structures, or representations, of organized knowledge that are based on experience and are used in perceiving and interpreting the external environment. These structures largely determine how individuals understand the surrounding world or the situation at hand. As these structures are constructed from prior experience under the influence of contextual factors, such as culture, all individuals have a unique set of knowledge structures and thus perceive their environments in personal ways.

Individuals have multiple different knowledge structures that are tailored to certain situations. When selecting a suitable structure that can be used to accurately make sense of an environment, individuals intuitively scan for cues in their information environment, which are then used to retrieve suitable knowledge structures from memory (e.g., Maitland & Sammartino, 2015a). In new and complex environments, decision makers can have problems in selecting a suitable knowledge structure because the cues from the environment and the existing knowledge structures do not match (or they might not even have a suitable structure), which means decision makers can have problems in understanding the situation and making sound decisions. Decision makers can also use knowledge structures that are ill-suited for interpreting certain environments. Most often, the knowledge structures of expert managers lead to viable decisions, but it is a well-known danger that such structures can systematically result in wrong or biased interpretations and decisions (e.g., Gigerenzer & Gaissmaier, 2011; Kahneman, 2011).

In management literature, knowledge structures have been studied under different labels, including frames, cognitive maps, and schemas (Helfat & Peteraf, 2015). In internationalization literature, knowledge structures have been examined using the concepts of mental maps (Maitland & Sammartino, 2015a), domestic and global mindsets (Nadkarni & Perez, 2007), and upper echelons or managerial characteristics more generally



(e.g., Hutzschenreuter & Horstkotte, 2013). Much of the existing research has investigated the content of knowledge structures and how it influences managerial actions, while the mechanisms of how these structures develop over time have received less attention (e.g., Walsh, 1995; Niittymies, 2020; Niittymies & Pajunen, 2020).

One particular form of organized knowledge that arguably falls under the umbrella concept of knowledge structure is the concept of heuristics. Heuristics are cognitive tools, often conceptualized as simple rules or cognitive shortcuts, that managers use in their decision-making (Gigerenzer & Gaissmaier, 2011). Heuristics are used for making quick decisions in situations where time limitations exclude the possibility of an exhaustive information search or when the complexity and uncertainty of the information environment exceed an individual's cognitive processing capabilities (e.g., Davis, Eisenhardt, & Bingham, 2009; Bingham & Eisenhardt, 2011). Like all forms of knowledge structures, heuristics are based on prior experience linked to certain contexts; therefore, heuristics' capacity to facilitate decision-making is context-dependent and idiosyncratic (e.g., Bingham & Eisenhardt, 2011). As heuristics provide rule-like guidance for making decisions in complex situations, scholars in the classical heuristics and biases research stream have adopted a negative view on heuristics, arguing that automatic and unconscious biases in heuristics can lead to errors in decision-making and judgment (e.g., Tversky & Kahneman, 1974; Kahneman & Tversky, 1979). However, these insights were developed based on laboratory studies, which makes it reasonable to doubt whether the findings have external validity and practical relevance (Bingham & Eisenhardt, 2011). A more recent heuristics research stream—fast and frugal heuristics—has contested this negative view on heuristics, arguing that heuristics can lead to accurate judgments when time, information, and processing capacities are limited, especially in complex situations, and are thus a superior way of making judgments and strategic decisions in a complex and uncertain world (e.g., Gigerenzer & Gaissmaier, 2011; Luan, Reb, & Gigerenzer, 2019).

Cognitive processes underlie knowledge structures and are related to the use, development, and change of such structures. Cognitive processes are responsible for actions such as scanning the environment for cues, retrieving correct knowledge structure from memory, and updating existing knowledge structures using acquired experience (e.g., Helfat & Peteraf, 2015). Cognitive processes are a central element of cognitively oriented internationalization research because learning and knowledge development are considered to play a major role in firms' internationalization processes that unfold over time. In fact, even the dominant internationalization model, the Uppsala model, assumes that firms expand to more distant and unfamiliar countries because they can reduce uncertainty through learning (e.g., Johanson & Vahlne, 1977). Furthermore, the existing literature suggests that firms become better at internationalization-related decisions by learning from their own experiences (e.g., Jonsson & Foss, 2011) and learning from other parties, such as partners, employees, and networks (e.g., Belderbos, Van Olffen, & Zou, 2011; Hernandez, 2014; Jiang, Holburn, & Beamish, 2014; Park & Harris, 2014). Learning



from own experiences is often labeled as experiential learning, while learning from others is known as vicarious learning. In these learning processes, experience is the main material that allows cognitive processes to update and develop knowledge structures. Therefore, experience is highly important when studying learning and knowledge development as well as firm internationalization. For instance, Maitland and Sammartino (2015a) studied the relationship between decision makers' experience and their abilities to understand their environments and concluded that managers with more international experience could achieve much richer understandings of foreign environments.

## The missing manager

Even though the internationalization literature is built on assumptions about bounded rationality, the managers themselves are surprisingly overlooked, which means that their roles in firms' internationalization processes are only partially understood. I am by no means the first to point out this flaw in the field. According to Aharoni (2010: 101), "in their search for elegance and rigor, IB researchers ignored the rich evidence on psychological aspects of decision making, the complexity of decision making under uncertainty and the accumulation of commitments. In most studies, outcomes are deterministic, the firm is treated as a black box, and managers – if they are mentioned at all – are assumed to be rational calculators of costs and benefits." Similarly, Maitland and Sammartino (2015b) emphasized that the role of boundedly rational decision makers is underspecified in international business theories, which hampers empirical research on the cognitive foundations, such as experience and learning, of firm internationalization.

Looking at the history of the internationalization research, it is clear that the field started with an economics-based approach: the early explanations about investment flows across national borders and the derived advantages were byproducts of an economics perspective, with very little attention given to the managers behind organizations' actions. Consequently, most internationalization models and theories do not recognize the influence of individual decision makers and their underlying cognitive processes (e.g., Coviello et al., 2017; Kogut, Walker, & Anand, 2002). That being said, the theories of the gradual development of international presence do, to some degree, involve behavioral elements, such as perceptions, learning, and knowledge, but these models still assume a rather high level of managerial rationality, whereby firms' headquarters are the "authors" of the decisions, with individual managers and their cognitive capabilities and flaws not receiving any attention (Aharoni et al., 2011). The lack of research on individual managers is problematic because firm internationalization is a highly uncertain and complex process in which decision makers cope differently with uncertainty and interpret the complex information environment in various ways. Therefore, experience, cognitive limits, and risk and uncertainty tolerance are critical factors that shape the decisions driving firms' internationalization processes (e.g., Clark et al., 2018). These factors are particularly important when decision makers vary in

terms of their cultural background, prior experience, and risk and uncertainty tolerance (e.g., Demirbag, McGuinness, & Altay, 2010; Kiss, Williams, & Houghton, 2013; Liesch, Welch, & Buckley, 2011).

## Studying the cognitive foundations of firm internationalization

Decision makers' cognition is usually investigated by examining cognition indirectly through proxies or directly through different mapping techniques (e.g., Kaplan, 2011; Narayanan, Zane, & Kemmerer, 2011). The first approach to examining cognition deals with decision makers' observable characteristics, an approach known as the upper echelons theory (e.g., Hambrick & Mason, 1984). This approach is based on the premise that observable characteristics can provide insights into how an individual's cognitive structure is built, which, in turn, can explain the individual's actions and choices. Moreover, individuals with similar experiences and backgrounds tend to make similar choices (e.g., Hambrick, 2007). In short, an individual's cognition can be examined through their background characteristics (e.g., Hambrick & Mason, 1984). As accessing decision makers' psychometric data can be difficult, examining cognitions through observable characteristics is the best, and only, alternative in many cases. The second approach is to examine managers' cognition more directly using techniques such as cognitive mapping (e.g., Huff, 1990). While cognition research began with indirect techniques, in the 1990s, Huff's *Mapping Strategic Thought* (1990) and Walsh's (1995) review of managerial cognition provided more direct ways of examining cognition via cognitive structures and mental maps instead of personal characteristics (e.g., Hodgkinson and Healey, 2008; Narayanan et al., 2011; Kaplan, 2011). These techniques can assist in capturing differences in decisions makers' perceptions within specific contexts, which is then theorized to have an impact on their decision-making (e.g., Maitland & Sammartino, 2015). Despite various differences, both methods constitute valid approaches to studying cognition in contemporary cognitively oriented research.

However, both of these commonly used approaches adopt a relatively structured attitude to exploring managers' cognitions. While sketching a manager's cognitions as a map or a structure (e.g., Maitland & Sammartino, 2015a) or as something that arises from observable characteristics (e.g., Williams & Gregoire, 2015) are valid ways of examining cognitions, they are all based on the assumptions that observable reality exists and can be mapped or presented as a structure. This is in line with Lundgren and Jansson's (2016: 347) notion that "much of the qualitative research being done within IB [international business] continues to share the positivist assumptions traditionally connected with quantitative research, ignoring much recent epistemological and ontological debate within business and management studies." Welch and Piekkari (2017) have also pointed out the prevailing positivistic overtones in qualitative international business research. This is a troubling trend because committing to a single philosophical paradigm or methodological alternative can lead to a partial understanding of the studied phenomenon due to the limitations of the

selected approach as well as the increased risk of biases and errors (e.g., Nielsen et al., 2020). To sum up, I claim that the existing literature lacks less structured approaches to examining cognitions that, together with the structured approaches, could provide a fuller and richer understanding of the cognitive foundations of firm internationalization. For instance, the psychoanalytic approach, reflecting poststructuralist assumptions, has been successfully used in management literature to understand the unconscious motives and rationales that drive decision makers' behaviors (e.g., Stein, 2007; MacKillop, 2018). In these studies, rather than being presented in a structured way, cognition is seen as a complex, multilevel construct that cannot be fully understood via the two commonly used techniques for cognitive research. Consequently, I believe that the existing literature would benefit from new methodological initiatives.

# Methodology

## The emergent nature of qualitative research

My first contact with qualitative research occurred through guides on how to conduct qualitative research step by step and how to write it down properly (e.g., Eisenhardt & Graebner, 2007; Gioia, Corley, & Hamilton, 2013). However, such guidelines do not reflect my experiences of actually performing qualitative research, as I have learned that qualitative research is an emergent phenomenon and does not unfold in a linear fashion. Therefore, I will start this methodological chapter by briefly stating that I am not going to frame the dissertation process as something that progressed step by step according to the master plan that I had developed when starting my doctoral studies, a plan whereby each decision regarding the methods and topics had a clear reason and role in the narrative of the dissertation. Everyone who has done qualitative research knows that qualitative research, as well as an article-based dissertation, is a messy process that involves chaotic pivoting and jumping back-and-forth between different phases of the research process. Therefore, I am not going to claim that this dissertation, or the articles, advanced steadily like a train, and I am not going to support the distorted qualitative research ideals from the 1980s filled with positivistic overtones. Instead, I bluntly and truthfully state that the decisions regarding the articles' topics and methods were made based on my own interests and other influencing factors, and, through twists and turns, the dissertation somehow emerged from these decisions. I am transparent about this because I believe that international business scholarship has passed the period when qualitative research had to be written and presented in a certain form, in line with the requirements of "scholarly rigor" that arose from positivistic quantitative research to please the quantitatively oriented reviewers and editors (e.g., Pratt, 2008; Piekkari & Welch, 2017).

## Philosophical and methodological considerations

According to the general understanding, methodological choices in dissertation research, and in all scientific inquiry, are guided by the research paradigm or the philosophical orientation adopted by the researcher (e.g., Burrell & Morgan, 1979). In this dissertation, I do not commit to a single philosophical or methodological paradigm but rather follow the idea of qualitative pluralism with a pragmatic outlook that encourages using multiple different approaches for conducting qualitative research (e.g., Frost et al., 2010; Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mäntymäki, 2011). That is, I seek to explore the cognitive foundations of firm internationalization from multiple philosophical and methodological perspectives. To do this, I adopt a view that allows for the concurrent existence of multiple research paradigms and differing ontological and epistemological assumptions. I do, however, recognize that approaches that are based on different philosophical assumptions are, in some respects, incommensurable and that these research approaches must be used coherently so that their underlying ontological and epistemological assumptions are aligned. My take on the different orientations is rather pragmatic, as I maintain that multiple alternative viewpoints make it possible to produce a more complete and richer theoretical understanding of the cognitive foundations of firm internationalization (e.g., Allison, 1969; Kellert et al., 2006).

The philosophical orientations used in this dissertation are qualitative positivism, interpretivism, and poststructuralism. As the empirical articles that make up this dissertation employ these orientations, I use them to discuss the findings and develop directions for future research on the cognitive foundations of firm internationalization. These orientations represent broad research categories that draw on certain philosophical assumptions regarding the nature of reality and knowledge; as the assumptions underpinning these categories tend to vary, it is difficult to define the categories' boundaries precisely. Therefore, I will now briefly explain how I perceive these categories in my dissertation.

The central assumption in qualitative positivism is that qualitative (nonquantitative) methods can be used, based on positivistic assumptions about reality and knowledge, to explain social reality and the relationships between actors (Prasad, 2018). Qualitative positivism's major assumptions can be traced back to the works of the French sociological positivists of the early nineteenth century, such as Auguste Comte, Herbert Spencer, Vilfredo Pareto, and Emile Durkheim, who drew on natural sciences in their efforts to understand social reality and assumed that social reality is composed of concrete, observable, empirical artifacts that can be studied and observed using approaches from natural sciences (e.g., Burrell & Morgan, 1979). Qualitative positivism adopts relatively similar assumptions about ontology and epistemology as does the realist tradition: objective reality is considered to exist independently of the individuals perceiving it, and thus such reality can be observed as it is (e.g., Prasad & Prasad, 2002). Therefore, in studies inspired by qualitative positivism, the observations and theoretical insights made using empirical data are considered to closely reflect objective reality, which is the same for all individuals (e.g., Eisenhardt, 1989). A

central notion in qualitative positivism is to distinguish itself from interpretive qualitative research (Piekkari & Welch, 2017).

Interpretivism emerged from the German intellectual tradition, notably from the works of Immanuel Kant, Max Weber, Edmund Husserl, and Wilhelm Dilthey, and challenges the natural sciences-based positivist assumptions regarding objective reality and the idea that knowledge can be produced based on such reality (e.g., Burrell & Morgan, 1979). According to Guba and Lincoln (2005), the human world, or the social reality, largely consists of the meanings assigned to it by the actors, and thus it can only be understood via the actors' subjective interpretations. Therefore, interpretive approaches are mainly concerned with understanding social reality through actors' subjective experiences instead of trying to explain it via causal factors and relationships (e.g., Burrell & Morgan, 1979; Welch et al., 2011). This also means that our understanding of the social world is inherently flawed and partial because it is impossible to directly observe and study objective reality.

Poststructuralism is one of the most recent phases of continental philosophy and originates from the works of French scholars in the 1960s, most notably from the works of Roland Barthes, Michel Foucault, Jacques Derrida, and Jean Baudrillard (e.g., Harrison, 2006). According to recent scholarship, the label "poststructuralism" emerged in the intellectual debate when the works of French thinkers (who did not identify as poststructuralists) were reinterpreted outside France in the 1980s and 1990s, especially in the Anglo-American world (e.g., Angermuller, 2015). Poststructuralism represents the most subjective approach in this dissertation and is based on the assumptions that reality is socially constructed and that this reality does not exist outside of the ways of constructing it through texts and language (e.g., Alvesson, Bridgman, & Willmott, 2011; Arnaud & Vidaillet, 2018). Poststructuralism avoids approaching the world through strict, closed, and quantifiable structures, as they would inevitably shape the outcome of the research process; instead, the poststructuralist approach adopts a different view on structures and treat them as malleable or flexible. It is good to note, however, that poststructuralist thinkers differ in their relation to structures. For instance, Foucault was relatively explicit with his genealogical methods and laid out clear methodological structures (Foucault, 1977) whereas Lacan aimed to avoid laying out such structural approaches (e.g., Arnaud & Vidaillet, 2018). Altogether, the poststructuralist approach adopts negative and critical lenses and seeks to question and deconstruct the prevailing understandings and structures that influence the construction of social reality (e.g., Kilduff, 1993).

Furthermore, my methodological choices in this dissertation are guided by the idea, or the ideal, that the point of qualitative research is not to blindly follow a fixed procedure but to be transparent and consistent in making and explaining one's methodological choices. In other words, qualitative research methodology should not be seen as a rigid template that determines how the research process should unfold; instead, research methods should be seen as flexible tools that the researcher can use to achieve the desired outcomes. In

short, the researchers should be the ones using the research methods to their ends instead of allowing research methodology to occupy the driver's seat in scientific inquiry.

In this dissertation, the first two articles are systematic literature reviews and do not address the underlying philosophical assumptions of the analyzed articles. The following two empirical articles are based on case studies that used several philosophical orientations, including approaches drawing on qualitative positivism, interpretivism, and poststructuralism. Article III approached case-study research, which is often favored in management literature, via qualitative positivism and inductive theory building (e.g., Eisenhardt, 1989; Gioia et al., 2013). Article IV adopted historical case-research approaches based on different philosophical orientations. Next, I will further explain my methodological decisions and their applications in the articles on which this dissertation is based.

## Research strategies and methods

### Systematic literature reviews

Articles I and II were systematic literature reviews. As a research method, the systematic literature review seeks to critically review and logically synthesize prior research to support the conceptual, methodological, and thematic development of a research field or domain (e.g., Paul & Rialp-Criado, 2020). In other words, systematic reviews develop an integrative understanding of prior literature, identify potentially underemphasized or ignored topics, and point out avenues for future research. Such reviews are based on explicit and systematic procedures at all phases of the research process to enable replicability and to reduce potential biases (e.g., Barczak, 2017). While systematic reviews can be conducted in many ways and using multiple methods, the phases that are often used include (1) journal and database selection, (2) the creation of a search protocol for the keyword search, (3) coding the sample articles based on thematic codes, and (4) qualitatively analyzing the coding tables (e.g., de Mol, Khapova, & Elfring, 2015; Schmitt, Raisch, & Volberda, 2018; Paul & Rialp-Criado, 2020).

First, selecting suitable journals and databases is critical for locating suitable sample articles. While numerous journals exist today, the state-of-the-art debate arguably takes place in a few major ones. According to Paul and Rialp-Criado (2020), the purpose of this phase is to arrive at a manageable sample of relevant articles, and scholars often use quality-related criteria, such as impact factors or journal rankings, to select journals. In the cases of Articles I and II, the sample was initially developed for Article I, but I later used the same sample for Article II as well by qualitatively re-analyzing the sample articles and coding tables. Consequently, the steps for creating the sample and the coding procedures are the same for both articles. The goal in Article I was to review the relevant empirical research on the cognitive foundations of firm internationalization to generate a systematic and



integrative understanding of the field and to point out possible gaps in our understanding, thus establishing a solid base for future research. When searching for the relevant literature, my co-author and I conducted a keyword search using the Web of Science database. To ensure the quality and suitability of the sample articles, we limited the search to the “business” and “management” categories of the Web of Science, 14 leading international business and management journals, and the 1992–2018 period (see Table 2).

Table 2. The search protocol and the selected journals for Article I and Article II	
The search protocol	Selected journals
(attention OR mindset OR schema OR “cognitive schema” OR “cognitive processes” OR “causal maps” OR cognition OR “cognitive approach” OR “cognitive bias” OR “cognitive complexity” OR “cognitive construction” OR “cognitive diversity” OR “cognitive factions” OR “cognitive frames” OR “cognitive groups” OR “cognitive mapping” OR “cognitive maps” OR “cognitive structures” OR frames OR “frames of reference” OR framing OR “heuristics and biases” OR “information exchange” OR “information processing” OR “information sharing” OR “issue selling” OR judgment OR “knowledge base” OR “knowledge structures” OR “knowledge transfer” OR “managerial cognition” OR “measuring knowledge” OR “mental maps” OR “mental models” OR “organizational knowledge” OR overconfidence OR perception OR “problem representation” OR sensemaking OR “shared cognition” OR “shared understanding” OR signaling OR “similarity judgments” OR “social cognition” OR “social learning” OR “strategic cognition”) AND (internationalization OR “international expansion”)	<i>International Business Review</i> <i>Journal of World Business</i> <i>Journal of International Business Studies</i> <i>Journal of Business Research</i> <i>Management International Review</i> <i>Journal of International Management</i> <i>Journal of Management Studies</i> <i>Strategic Management Journal</i> <i>Research Policy</i> <i>Journal of Management</i> <i>Academy of Management Journal</i> <i>Administrative Science Quarterly</i> <i>Management Science</i> <i>Organization Science</i>

Second, developing the search protocol for finding the articles is often done by determining a suitable set of keywords, which is a challenging task because too common or too many keywords can lead to inaccurate samples, whereas too specific or too few keywords may leave important studies out of the sample (e.g., Paul & Rialp-Criado, 2020). Thus, when finalizing the sample, clear inclusion and exclusion criteria should be established to manually develop the final sample. The search protocol (see Table 2) used in Articles I and II was based on 46 cognitive keywords identified in the seminal works on managerial cognition in the management literature (e.g., Walsh, 1995; Kaplan, 2011). The search resulted in 189 peer-reviewed articles, of which 136 qualified for the sample. From these, 53 articles were discarded due to their inadequate links to firm internationalization or cognitive themes or because they were not empirical. Finally, to strengthen the legitimacy



of the initial sample, we manually checked the reference lists of recently published articles and added two relevant articles to the sample. The final sample consisted of 138 articles.

In the third phase, the articles were read in full and assessed based on thematic codes, which is the state-of-the-art procedure for conducting coding for systematic reviews (e.g., de Mol et al., 2015; Schmitt et al., 2018). The thematic codes were as follows: (1) publication year, (2) title, (3) authors, (4) journal, (5) area of contribution, (6) key findings, (7) methods, (8) analytical level, (9) cognitive focus, and (10) cognitive theme. Setting clear conceptual boundaries for organizing the literature is considered one of the most critical steps when conducting a systematic review study (e.g., Denyer & Tranfield, 2009; Macpherson & Jones, 2010). In this case, the developed boundaries were based on two categories that are often used to organize research on prior managerial and organizational cognition literature: (1) the static knowledge structures that guide managers' understanding and decision-making and (2) the cognitive processes that underlie these structures and are responsible for their creation and development (e.g., Walsh, 1995; Gavetti, 2012; Helfat & Peteraf, 2015). The sample studies were divided into these two categories under code nine.

Under code ten, the studies were given "cognitive labels" based on the cognitive topics and areas of research in the division statement of the Academy of Management's Managerial and Organizational Cognition Division. These cognitive themes were social construction, culture and cognition, the nature and role of mental models and representations, judgment and decision making, attribution processes, individual differences, non-conscious forms of cognition (e.g., intuition), cognitive institutionalism, emotion, ideology, identity/identification, image, reputation, sense-making/meaning-making, symbols and artifacts, categorization, knowledge creation and management, individual learning, organizational learning and memory, and communities of practice. Code ten also enabled us to exclude all studies with inadequate links to cognitions.

The fourth phase involved conducting a qualitative content analysis of the coded sample articles to identify their main commonalities and contradictions. In Article I, this led to the identification of three main research areas that focus on the cognitive foundations of firm internationalization, each of these three research areas can be further divided into three more specific research areas. This categorization of prior research constituted the core structure of the review article.

In Article II, the goal was to review the internationalization literature on the cognitive differences that stem from managers' background characteristics and to discuss how the unique insights of the international business literature could advance the managerial cognition literature in the management discipline. For this purpose, the coding tables from Article I provided theoretically appropriate sample articles. This enabled me to skip the journal and database selection, keyword search, and coding phases and allowed me to begin by conducting a qualitative content analysis of the sample articles. The analysis showed that from the 138 sample articles, 40 articles explicitly focused on background-related cognitive differences. These studies were then further categorized based on how they

approached managers' cognitions. This process led to the identification of the following four main streams of upper echelons-oriented research on the cognitive foundations of firm internationalization: (1) cognitive distances, (2) cognitive structures, (3) the legacy of the home country, and (4) tolerance for cognitive differences.

## Case studies

Articles III and IV were based on the case study approach. The case study approach is arguably one of the most popular research approaches in qualitative international business and management research. The case study approach is highly adaptable to different kinds of data and analysis techniques. For instance, a case study can use historical data and methods (e.g., Buckley, 2020) or more structured qualitative comparative analysis methods (e.g., Ragin, 2008). While the case study approach is hard to define precisely, which is why numerous definitions exist, the consensus appears to be that the case study approach aims to empirically derive theoretical insights by studying a phenomenon in its real-life context (e.g., Eisenhardt, 1989; Eisenhardt & Graebner, 2007). Such theoretical insights can be achieved, for instance, by means of inductive theory building, whereby data guide the formation of theoretical insights (e.g., Gioia et al., 2013), or deductive research, whereby developed theoretical propositions can be tested (e.g., Yin, 2014). It is important to note that the dichotomy between theory building (i.e., induction) and theory testing (i.e., deduction) has been disputed by recent methodological works because, in practice, the two aspects cannot be separated from each other (e.g., Piekkari et al., 2009). For instance, inductive theory building methods tend to build on prior research at some level, while the goals and propositions of deductive research can be shaped by the initial themes or patterns emerging from the cases. In addition, a case study can be conducted as a multiple case study using cross-case analysis methods (e.g., Eisenhardt & Bourgeois, 1988) or as a single case study that is considered persuasive and powerful due to its rich descriptions (Siggelkow, 2007). Case studies can be conducted on a single analytical level, on multiple levels, or across different levels. (Yin, 2014).

Case studies can also be conducted using different philosophical assumptions. In international business research, case studies have traditionally been built on qualitative positivist assumptions, according to which reality is considered to exist independently of the researcher and the focus is on explaining how this objective external reality unfolds (e.g., Lundgren & Jansson, 2016; Welch & Piekkari, 2017). The classic approaches by Yin (1984) and Eisenhardt (1989) are often considered to represent positivistic approaches to case research (e.g., Piekkari & Welch, 2017). In addition to the qualitative positivist approach, more subjective philosophical paradigms have also been used. Such approaches mainly draw on interpretivism and emphasize individuals' subjective understandings of how something happens because the underlying assumption is that reality can only be studied through the subjective experiences of individuals, which are always imperfect and

partial as they are constructed via social and psychological processes (e.g., Welch et al., 2011). Strauss and Corbin's (1994) interpretive grounded theory and the various narrative approaches (e.g., Haley & Boje, 2014) are good examples of the interpretive approach to case research. It is important to note, however, that the separating research approaches into different philosophical camps is not always clear, and some approaches draw on multiple paradigms and thus belong to multiple camps (e.g., Cornelissen, 2017).

Several articles and books have described the main phases or aspects of case study research. While the specifics differ to some degree, there is a consensus among scholars that the main phases of case study research are (1) designing the research process and the research purpose, (2) selecting suitable cases, (3) collecting data, (4) analyzing the data, and (5) articulating or presenting the empirical evidence and the emergent theory (e.g., Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Gioia et al., 2013; Yin, 2014). Below, I describe the five phrases in more detail.

**Research design.** Establishing the research design is the first task in case research. This phase includes developing a theoretically compelling research problem and purpose and the subsequent questions by critically reviewing the relevant literature to identify opportunities for new insights (e.g., Eisenhardt, 1989). A case study should be strongly grounded in prior literature on the studied topic, and these prior theoretical insights should also guide the process of developing further insights (e.g., Gioia et al., 2013). As I have already pointed out, there are multiple ways of conducting case studies, and the choice of the proper approach depends on the desired goals. Thus, in this phase, the researcher must decide and explicitly justify what kind of case study approach is best suited to investigate the identified research problem, as case studies can be used for building or testing theories, or both (e.g., Pekkari & Welch, 2017). As Eisenhardt and Graebner (2007) pointed out, justifying why the case study approach was chosen over deductive hypothesis testing is one of the most critical aspects in designing case studies because qualitative case research is often seen as somehow being less "rigorous" than traditional quantitative analyses; therefore, the use of case studies requires solid reasons for justifying it.

In Article III, the goal was to investigate how heuristic decision-making is influenced by context-specific experience in firm internationalization. Therefore, I decided to use the case study approach because it is good for capturing, interpreting, and representing the emergence of cognitive processes that are challenging to observe (Maitland & Sammartino, 2015a). Moreover, the case study approach is also the commonly accepted way of studying individual managers' decision-making processes and their underlying cognitions in internationalization research (e.g., Bingham & Eisenhardt, 2011; Bingham & Haleblan, 2012). More specifically, I mainly used the systematic approach to inductive case research established by Gioia, Corley, and Hamilton (2013), a suitable method when the studied phenomenon has been poorly examined in prior literature (e.g., Corley & Gioia, 2004; Jay, 2013). As the studied topic, heuristic decision-making in firm internationalization, has been scarcely studied, the Gioia-based inductive approach is a justified choice because this

approach can be used to develop initial insights that can guide further research on the topic (e.g., Corley & Gioia, 2004).

While the study described in Article III mainly followed the steps of the Gioia-based approach to inductive research (see Table 3), the study deviated from these steps in two major ways: the study used two cases instead of one to increase its analytical power and robustness (e.g., Eisenhardt & Graebner, 2007); consequently, the study used a cross-case pattern search to examine whether there was a shared story between the two cases (e.g., Eisenhardt, 1989). These choices also impacted the article’s philosophical positioning. More specifically, I view the Gioia approach, despite its interpretive label, stands somewhere between the positivist and the interpretive camp (e.g., Cornelissen, 2017); by supplementing the study with the positivistic elements from Eisenhardt (1989), I clearly positioned the article as belonging to qualitative positivism. However, I believe that questioning the interpretive label of the Gioia approach is debatable, which is why I must further explain my rationales behind this action.

Table 3. Steps of the Gioia-based approach to inductive research. (Gioia et al., 2013.)	
Step	Actions
Designing the study	Define the studied phenomenon and the research questions  Consult the existing literature to provide groundings for the research
Collecting the data	Give voice to the informants  Adjust the interview protocol based on informant responses and the initial insights  Consult prior informants about the questions that may arise during subsequent interviews
Analyzing the data	Conduct first-order coding by using the informants' terms Organize first-order themes into second-order themes while increasing the level of abstractness  Form third-level theoretical dimensions from the second-order themes by again increasing the level of abstractness  Generate a “data structure” from the themes and dimensions
Building and articulating the theoretical model	Transform the first- and second-order themes and theoretical dimensions into a dynamic model that illustrates the relationships between the themes and dimensions

While Gioia et al. (2013) labelled their approach as interpretive and emphasized the importance of experienced reality and socially situated knowledge, they knowingly included positivistic elements, such as testable theoretical propositions and transferable theoretical outputs (e.g., Cornelissen, 2017), thus positioning the method somewhere between the

two paradigms. They acknowledged the positivistic essence of theoretical propositions but considered them useful “in bridging the often wide gulf between qualitative and quantitative researchers,” as propositions can be tested by positivist quantitative researchers (Gioia et al., 2013: 25). This idea is inherently positivistic because it builds on statements that reality can be studied using positivistic quantitative methods, which are often considered incapable of capturing the subjective details that are characteristic of interpretive research. Continuing with this line of thinking, Gioia et al. (2013) also maintained that the Gioia approach can produce theoretical products that are transferable to other cases and contexts, similar to Eisenhardt’s (1989) classical positivistic approach to case research. This is contrary to interpretive approaches, in which the theoretical products focus on understanding the specific and unique details of each case, which makes the insights poorly transferable across cases and contexts (e.g., Cornelissen, 2017). In sum, as the Gioia approach is somewhere between the two camps, I believe that the added positivistic elements from Eisenhardt (1989) push the philosophical stance of Article III towards qualitative positivism.

In Article IV, the goal was to explicate the potential of historical research approaches for capturing the temporality of how firm internationalization and de-internationalization processes emerge over time. This was done by empirically showing the applications of (1) the comparative historical analysis approach, (2) the interpretive history approach, and (3) the poststructuralist history approach in internationalization research. More specifically, the article provided a historical account of how United Paper Mills (UPM) expanded to Italy and then withdrew. My co-authors and I then analyzed this historical account using the three suggested historical approaches to illustrate how these approaches can be used and what kind of insights each approach can generate regarding the temporality of UPM’s internationalization. In short, in this article, the research design did not involve one particular research paradigm or method but rather adopted a broad view that accommodated multiple different approaches to investigate the studied phenomenon from various angles and produce a fuller and more sophisticated understanding.

**Case selection.** The second step in the case research process is case selection. This step is important because it involves critical decisions regarding the cases that influence the generalizability and robustness of the findings as well as shape the outcome of the research by setting concrete boundaries (e.g., Eisenhardt & Graebner, 2007).

The first decision is to define what the case should represent. Cases are often selected based on theoretical sampling, which means that cases are chosen because they “are particularly suitable for illuminating and extending relationships and logic among constructs” (Eisenhardt & Graebner, 2007: 27). Theoretical sampling is great for producing an in-depth understanding of a phenomenon, especially when prior understanding is relatively poor (e.g., Corley & Gioia, 2004). While selecting cases based on theoretical sampling limits the generalizability of the findings to the selected population, it is important to note that the generalizability assumption in case research is often misunderstood: case studies do not seek to test hypotheses with representative data to produce findings that are generalizable

to the population but, instead, aim to develop novel theoretical insights. Therefore, cases do not have to be representative of selected populations, contrary to large-scale deductive theory-testing research (Eisenhardt & Graebner, 2007).

The second decision is related to the number of selected cases. A researcher must decide whether the research will be conducted using a single case study or multiple cases. Single case studies are powerful tools for producing a rich, in-depth understanding of a selected phenomenon (e.g., Siggelkow, 2007). Single case studies are a suitable choice for research projects dealing with rare, unique, or extreme study objects (Yin, 2014) or when prior understanding of the phenomenon is relatively poor and initial insights are needed to guide future research on the topic (e.g., Corley & Gioia, 2004). Multiple cases increase a study's analytical power and robustness and enable comparisons between the cases, which can be used to determine whether the findings occur across different cases and contexts (Eisenhardt & Graebner, 2007). In sum, multiple cases provide a stronger base for theory building, but a single case is a better tool for examining unique and special cases.

The studies described in Articles III and IV both used theoretical sampling in case selection. This means that the cases were purposefully selected because they fulfilled the requirements of the conceptual category representing the studied phenomenon (e.g., Eisenhardt, 1989; Eisenhardt & Graebner, 2007).

In Article III, I selected multiple cases to have a stronger base for theory building. The specific case firms were selected because they were internationalizing SMEs that started their international expansions without prior internationalization experience. Therefore, they enabled me to investigate how heuristic decision-making is influenced by context-specific experience in firm internationalization and, as the two companies initially lacked international experience, to observe the subsequent impact of the context-specific experience.

In Article IV, my co-authors and I conducted the research using a single case study and provided a historical account of UPM's actions in Italy. We chose this approach because the article's purpose was to empirically elaborate the applications of the different historical approaches in internationalization research and we considered that the unique potential of each approach can be best shown by analyzing the same case with the suggested approaches. As historical accounts are detailed and rich descriptions of organizations' actions, using multiple historical accounts would not have served the purpose of illustrating the use of different historical research approaches clearly and concisely. The case firm, UPM, was selected because it represented the studied phenomenon, firm internationalization and de-internationalization, in a rich historical context, which allowed us to show how historical methods can be used to study a firm's internationalization process.

**Data collection.** The third phase of the case study approach is data collection. Case studies can be conducted using a variety of data types, which can be collected from multiple sources and by using many different techniques, including interviews, archival data, observations, and ethnographies (e.g., Eisenhardt, 1989; Gioia et al., 2013). Often, different



data sources are used together to enable data triangulation, which enables gaining additional perspectives on the studied phenomenon and thus developing a better understanding of the studied case (e.g., Eisenhardt, 1989; Yin, 2014).

In Article III, I collected the data via 21 in-depth interviews with all top management team members in two case firms at different time points between the years 2015 and 2020 (see Table 4). While interviews are often used as the primary data source in case studies, interview data have been criticized as being potentially biased because of retrospective sensemaking and other flaws in informants' cognitive processes (e.g., Eisenhardt & Graebner, 2007). Therefore, I interviewed multiple informants at multiple time points to reduce the potential biases in the data. Interviews can be conducted by using different techniques, including structured interviews, semi-structured interviews, and open in-depth interviews (e.g., Suddaby, 2006). For Article III, the data were collected via open in-depth interviews, with the discussions being guided by the interviewer when needed; accordingly, the data were shaped by the researcher's interpretation of each interview event (e.g., Suddaby, 2006; Gioia et al., 2013). The goal of the interviews was to acquire as rich a description as possible of how the management teams saw the internationalization process, the decisions, and the reasoning behind these decisions. Therefore, the informants were asked to describe the international expansion process, with specifying questions being asked when something interesting was said. The management teams were also asked questions about their prior experiences and backgrounds, company history, important events, prior decisions, and future plans, with a particular focus on why something happened or was decided. The interviews were continued until new information did not emerge anymore.

Table 4. The interviews of Article III.							
Case: Fitness firm							
Director:	FA	FB	FC	FD	FE	FF	FG
Number of interviews	3	3	2	1	1	1	1
Case: Grooming firm							
Director:	GA	GB	GC	GD	GE	GF	
Number of interviews	2	1	1	2	2	1	

In Article IV, the data were collected by one of the co-authors. The studied case was a historical account that was constructed from different types of materials related to the studied organization and phenomenon, which is typical in historical research approaches (e.g., Kipping, Wadhvani & Bucheli, 2014). The data were collected from multiple sources, as shown in Table 5, to enable data triangulation, which allows generating a better contextual understanding of the situation. The primary research data were collected from the company archives and consisted of the minutes from the meetings of the board of directors and the

administrative board, managers' correspondence materials, other internal management documents, and financial data. These data were supplemented by archival data collected from the Bank of Finland and the Central Association of the Finnish Forest Industry, which provided information related to the loans, investment projects, and communications with important stakeholders. In addition, secondary sources, such as books, news articles, and annual reports, were also used to construct the historical account.

Table 5. Archival and secondary data for Article IV.

Class	Data source	Materials
Archival data	Archives of UPM	Minutes of board meetings
	Archives of the Bank of Finland	Minutes of UPM International's board meetings
	Archives of the Central Association of the Finnish Forest Industry	Minutes of the administrative board's meetings
		Reports and analyses
		Financial data
		Correspondence
Secondary data		Memos
	Annual reports	Nordberg's (1998) company history of UPM
	Books	Klemola's (1971) biography of Juuso Walden
	Magazine articles	Seppälä's (1981) biography of Rudolf Walden
	Newspaper articles	The personal memoir of Sakari T. Lehto (1996)
		The personal memoir of Niilo Hakkarainen (1993)
		<i>Talouselämä</i> (magazine) from 1960 to 1979
		Newspaper articles from <i>Aamulehti</i> about Juuso Walden

**Data analysis.** In the fourth phase of case research, the collected data are analyzed. Multiple different analytic strategies and techniques can be used to analyze the data (e.g., Yin, 2014). The decision regarding the suitable analysis method depends on the research design, the nature of the data being analyzed, and the method of theorizing, among other factors (e.g., Piekkari et al., 2009). In addition, the different philosophical assumptions that guide the research process (i.e., the chosen research paradigm) determine which analysis strategies and techniques are applicable. For instance, as pointed out in Article IV, the realist history approach can accommodate methods for examining the structures, processes, and mechanisms that are assumed to exist independently of the researcher's mind, whereas the poststructuralist approach provides methods for analyzing textual data to critically question the underlying assumptions and conditions on which actors' actions are based on



and revealing the implicit and sometimes unconscious rationales shaping the organizational activity.

In Articles III and IV, the data were analyzed in four different ways. In Article III, I analyzed the data by using a slightly modified version of the Gioia-based approach to inductive theory building (e.g., Gioia et al., 2013). In this approach, the data are reduced and coded in three phases. The key idea is to reduce the amount of data by increasing the level of abstraction at each step, thus turning interviewed managers' real-life experiences into theoretical dimensions. First, I created first-order themes by ordering and categorizing frequently occurring themes and labeling them using the terms mentioned by the informants. Next, I grouped the first-order themes and gave them more abstract labels by interpreting what the groups of themes could mean, thus pushing the analysis further into the theoretical realm. At this point, I deviated from the standard Gioia-based approach by using a cross-case pattern search to examine whether there was a common theoretical story to be found between the two cases (e.g., Eisenhardt, 1989). In other words, working with two cases instead of one allowed me to use the cross-case pattern search that is often employed in multiple case studies but not in Gioia-based case studies, as the latter are usually conducted with a single case (e.g., Gioia et al., 2013). This led to the emergence of second-order themes describing an abstracted reality that was similar to that of the managers from both case companies. At this point, I discarded some of the emerging themes that did not seem to fit the emerging theory. Next, I elevated the remaining second-order themes into the theoretical realm of aggregate phases that described the theoretical aspects of the heuristic decision-making in the case companies. This process required extensive effort in interpreting the data; therefore, in Table 6, I visually depicted with a data structure how I abstracted the data from first-order themes into third-level theoretical phases. The data structure is considered necessary for exposing the research process and the resulting findings for revision and scrutiny (e.g., Pratt, 2008; Pratt, 2009).

Table 6. Data structure of Article III.

Fitness firm →		Aggregate phases	← Grooming firm	
First-order themes	Second-order themes		Second-order themes	First-order themes
Lack of international experience The decision to internationalize without prior internationalization experience	Lack of experience of the target environment	<b>Inability to harness the positive impact of heuristics</b>	Lack of experience of the target environment	Lack of international experience The decision to internationalize without prior internationalization experience
Lack of understanding of the needs in international markets Planning is useless due to the lack of reliable information	Inability to make sense of the target markets		Inability to make sense of the target markets	Lack of understanding of the target market environment
Lack of strategic direction at the start Lack of specific product to drive internationalization	Inability to plan a strategy		Inability to plan a strategy	Lack of internationalization expansion strategy regarding location choices Lack of entry mode strategy
Networking with key players to gain information The systematic use of Europe Active as a source of contacts and information	Learning from networks and institutions	<b>Systematic gathering of experience</b>	Learning from networks and institutions	Participating in government internationalization support program Utilizing franchising networks as a source of information Acquiring external know-how for the board
Cooperation and joint venture preparations with a Dutch organization Search for a strategic partner due to a lack of resources	Learning from experience		Learning from experience	Establishing shops, own and franchised, in Germany, Estonia, the USA, Spain, and Sweden based on personal relationships

Table 6. Data structure of Article III.

Fitness firm →		Aggregate phases	← Grooming firm	
First-order themes	Second-order themes		Second-order themes	First-order themes
International experience gained from the cooperation with the Dutch actor	Accumulated context-specific experience	<b>Experience threshold</b>	Accumulated context-specific experience	International experience gained from networks and establishing shops
Cooperation and joint venture with the Dutch organization failed and terminated Failure with the Dutch actor reveals own core capabilities	Triggering event		Triggering event	Problems with franchise-holders and profitability Shops in Spain and USA are closed
Understanding the needs in the markets Understanding own position in the markets Sales and marketing underdeveloped in the industry	Market knowledge heuristics	<b>Heuristics-based strategy work</b>	Market knowledge heuristics	Ability to understand the host market environment Ability to understand requirements for location choices within the host market Ability to understand influential economic factors in the host markets
Realization of own superiority Realization of the potential of the IT system	Capability heuristics		Capability heuristics	Understanding of own business model Understanding the target markets in terms of its own business model
Strategic direction formed during internationalization Product for internationalization created in response to market understanding IT System became the primary product for the internationalization	International expansion heuristics		International expansion heuristics	Understanding of required/ suitable entry mode New expansion strategy formed Adopting master-model Franchise agents hired Establishing master franchise shops in Sweden and Denmark

In Article IV, we used the following three historical research approaches: (1) the comparative historical analysis approach, (2) the interpretive history approach, and (3) the poststructuralist history approach. Consequently, the article included three different analyses of the same historical account of UPM, whose purpose was to illustrate the potential of the suggested historical approaches in international business research, especially in internationalization research. Next, I will briefly describe the analytic techniques of each approach.

For the comparative historical analysis approach, the goal was to develop a generalizable understanding of UPM's de-internationalization process by identifying the central events and explicating the underlying causal mechanisms driving the process. The analysis started by first creating a causal structure that illustrated how the identified events related to UPM's internationalization and de-internationalization processes and how the events related to one another. Event structure analysis and counterfactual reasoning were used to analyze how the identified events were causally related. The developed causal structure illustrated how UPM's internationalization progressed and showed how de-internationalization emerged over time. Next, based on the causal structure, three core phases were identified that were critical for the de-internationalization process. Finally, by examining these core phases and the activities related to them, four underlying organizational mechanisms were revealed that explained how the process unfolded.

In the case of the interpretive history approach, the historical data were analyzed via hermeneutic readings of the collected material to "re-enact" the psychological and social rationales and reasons for why UPM's internationalization and de-internationalization unfolded as it did. Put otherwise, the goal was to understand why something happened by diving into the historical actors' sense-making processes and developed narratives. Historical actors' narratives enable researchers to understand how the past presents itself in the experiences of historical actors and how things make sense to them (Carr, 1986) because historical actors make sense of their reality by weaving multiple experienced moments and events into coherent stories and experiences through narratives (Fan & Liu, 2021). This kind of analysis requires extensive interpretive efforts on behalf of the researcher responsible for "re-enacting" or reconstructing the narrative that explains how the process unfolded in the past.

For the poststructuralist history approach, the data were analyzed critically using psychoanalytical lenses, especially by drawing on the Lacanian approach to psychoanalysis. The goal was to challenge the prevailing historical understanding of UPM's internationalization process. Analytic techniques drawing on the poststructuralist tradition seek to avoid concrete steps and analytical procedures because they are considered to influence the derived insights (e.g., Jones, 2000; Arnaud & Vidaillet, 2018). Therefore, the Lacanian psychoanalytical analysis relies on relatively unstructured readings of the texts and the use of Lacanian concepts in the analysis. More specifically, the concept of *jouissance* was used to understand the unconscious rationales shaping UPM's CEO's decision-making.

Jouissance is a concept that can be used to understand the behavior and production of the social world through the endless pursuit of unattainable satisfaction; actors pursue satisfaction but fail to capture it, which leads to renewed efforts to pursue satisfaction (e.g., Glynos & Stavrakakis, 2008).

Articulating the empirical evidence. The fifth and final phase of case research is to present the findings and the emergent theoretical model in a compelling and convincing way. This is not an easy task, as the case data cannot be summarized into compact numerical tables, as the preferred outcome in quantitative research, because the essence of case research lies in rich qualitative details (e.g., Eisenhardt, 1989; Eisenhardt & Graebner, 2007). According to Eisenhardt and Graebner (2007), while case research does not have strict requirements or even a shared agreement among scholars regarding the presentation of the findings, such findings are often presented based on their chronological order or theoretical structure. For the former, the presentation of the findings is arranged by following the narrative of the case, which is then intertwined with the developing theory. This is often done in single case studies because this method enables the presentation of a rich and detailed story. For the latter, the findings are arranged according to the emerging theory—that is, the theory is divided into sections, and each section is then developed via supporting case materials. This method is often used with multiple cases because it is difficult, and even often impossible, to present a complete narrative of each case while still maintaining the focus on the theoretical insights and general coherence in a single article. In sum, the point when presenting the findings is to provide transparency by showing the observed data and describing the consequent interpretations so that readers can follow and evaluate the process.

In Article III, the presentation of empirical evidence and the consequent findings was based on both presentation methods, chronological order and theoretical. This is because the model developed in the article was aimed at capturing a processual aspect in the development of heuristic decision-making, which is why the model unfolds in chronological order. The phases and themes were explained in chronological order and supported by the empirical evidence from the cases. After explaining each phase and theme together with the data, I further elucidated the developed theoretical model. To further strengthen the central arguments, I provided a table in which the fourth phase was further grounded in empirical data.

In Article IV, the presentation of the analyses and the findings was based on chronological ordering. More specifically, the developed historical account of UPM's expansion to Italy and the subsequent withdrawal involved chronological ordering as the account sought to explain how the story unfolded, and the findings from the three analyses were organized according to chronological order, even though the analyses themselves were not centered on the concept of chronologically unfolding temporality.

## Summary of the dissertation articles

This chapter provides a summary of the four research articles that constitute the research component of this dissertation. I approach each article as an independent piece of research with its own research problems, findings, and contributions. Table 7 provides the articles' summaries, purposes, and main findings.

Table 7. Summary of the dissertation articles.

Article	Title	Purpose	Main findings
<b>I: Review 1</b>	Cognitive foundations of firm internationalization: A systematic review and agenda for future research	The article aims to explore the current state of the research field by identifying the research domains that have been studied and those that have been underexplored or ignored. Consequently, the article offers an integrative understanding of cognitive internationalization research and provides a solid base for cumulative knowledge building in the future.	The article outlines three main research streams that consist of nine more specific research areas. Among the identified research areas, (1) managerial learning, (2) the characteristics of upper echelons, (3) intra-organizational perceptions, and (4) external actors' perceptions would benefit from further attention and can provide opportunities for advancing the internationalization literature.
<b>II: Review 2</b>	Studying cognition through decision-makers' characteristics: Insights from international business research	The article seeks to introduce unique insights of international business research regarding the cognitive differences and the resultant cognitive distance that stem from decision makers' cultural, national, ethical, and geographical characteristics to the literature on managerial and organizational cognition.	The article identifies four areas of cognitive research in which international business research has produced unique insights: (1) cognitive distances, (2) cognitive structures, (3) the legacy of the home country, and (4) the tolerance for cognitive differences. From these areas, tolerance for cognitive differences provides new and interesting opportunities for future research.
<b>III: Empirical case study 1</b>	Heuristic decision-making in firm internationalization: The influence of context-specific experience	The article seeks to investigate how heuristic decision-making is influenced by context-specific experience in firm internationalization by examining the development of heuristic decision-making processes in two Finnish SMEs starting their internationalization process.	The article argues that heuristic decision-making has a positive impact on internationalization strategy development but that managers are unable to harness these benefits at the beginning of their first internationalization venture. This positive impact can be accessed only after a certain level of context-specific experience is accumulated and when the stimulus from a triggering event starts the transformation of experience into usable heuristics.
<b>IV: Empirical case study 2</b>	Temporality and firm de-internationalization: Three historical approaches	The article aims to elucidate how three different historical approaches can be used to enrich the theoretical understanding of the temporal embeddedness of firms' de-internationalization processes	The article shows how the comparative historical analysis approach reveals the causal structure of the de-internationalization process and provides a useful understanding of the temporal grounding of the causal mechanisms that drive the international exit process. The interpretive history approach shows how the emergence of firm de-internationalization is embedded in the prevailing zeitgeist, the spirit of the time. Finally, the poststructuralist approach considers the role of individuals' strong subjectivity, in which multiple temporalities come together and form a chaotic combination that underlies seemingly rational behavior.

## Article I. Cognitive foundations of firm internationalization: A systematic review and agenda for future research

The critical role of cognitions in shaping firms' international expansion processes has been increasingly recognized in the internationalization literature during the last two decades (e.g., Clark et al., 2018). However, this rapidly growing field has not been systematically reviewed, and the field thus lacks a coherent overview of what we know about the cognitive foundations of firm internationalization and which areas would benefit from further scholarly attention. Consequently, the current understanding of the cognitive foundations that underpin firm internationalization is fragmented and underspecified (e.g., Coviello et al., 2017; Zucchella, 2021). This is problematic because the field is characterized by a notable variety of studied topics and methodologies used, which functions as a double-edged sword, as such variety can both reflect the potency of the research field and be detrimental to cumulative knowledge building.

With the above in mind, the purpose of the study was to chart the current state of cognitively oriented internationalization research by outlining the research domains that have gained scholarly attention and those that have potentially remained underexplored or ignored and to develop an integrative understanding that could provide a solid base for cumulative knowledge building in the future. In addition, the review proposed possible avenues for future research.

As a result of a systematic review of 138 research articles that were published in 14 leading international business and management journals between 1992 and 2018, the study identified three main research streams that consisted of nine more specific research areas, as illustrated in Figure 1.



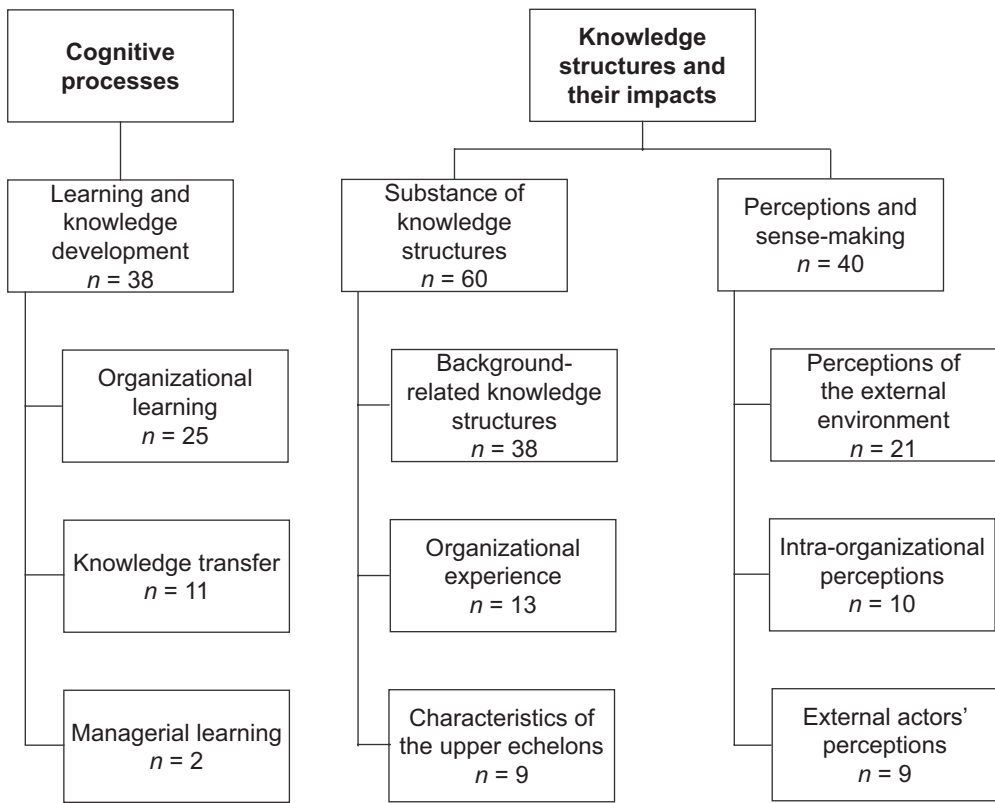


Figure 1. The main identified research streams and areas in Article III.

The study's findings showed that research on the cognitive foundations of internationalization started to take off from the year 2005 onwards and has been rapidly expanding ever since. The majority of the investigated studies were published in the following journals: *International Business Review*, *Journal of World Business*, *Journal of Business Research*, and *Journal of International Business Studies*.

The main findings of the study were related to (1) the analytical levels of the research and (2) the studied topics. First, the article described the challenges and opportunities related to the three main research streams: learning and knowledge development, the substance of knowledge structures, and perceptions and sense-making (see Table 8). These findings, especially the categories learning and knowledge development and the substance of knowledge structures, indicate that empirical research on the actual decision makers, the individual managers, is relatively scarce. As illustrated in Figure 1, the topics related to individual managers are also less prominent than the ones dealing with the organizational level. Second, the findings showed that research on the cognitive foundations of internationalization has focused on some domains more than others. In particular, the

study revealed that research related to (1) managerial learning, (2) the characteristics of upper echelons, (3) intra-organizational perceptions, and (4) external actors' perceptions remains relatively scarce. Thus, these domains may provide important and overlooked avenues for future research.

Table 8. The main research streams and their challenges in the cognitive internationalization literature described in Article I.

Main research streams	Key observations	Key challenges	Core insights of past studies	Potential future research questions
<b>Learning and knowledge development</b>	Learning and knowledge development are mainly examined from an organizational perspective, while the managerial perspective is neglected.	How do managers and their individual differences influence managers' moderating role in organizational learning and knowledge transfer in the context of internationalization?	Organizations learn from internationalization in multiple ways (e.g., Park & Harris, 2014), namely via experiential learning (e.g., Jonsson & Foss, 2011), vicarious learning (e.g., Belderbos et al., 2011; Jiang et al., 2014), or learning from networks, partners (e.g., Park & Harris, 2014), or employees (e.g., Hernandez, 2014).	How is the incremental nature of internationalization influenced by the learning and knowledge transfer among managers? Is managerial learning guided by the organization, or does the organization emerge from managerial learning? How is organizational learning influenced by managers' heterogeneous perceptions and preferences regarding what should be learned, and what is the role of managerial learning in this process?
<b>Substance of knowledge structures</b>	The substance of knowledge structures and their impacts are mainly studied by examining organizations' knowledge structures, whereas the top management's knowledge structures have received less attention.	How does the heterogeneity in the management's knowledge structures impact the internationalization decision-making processes at the organizational level?	Organizational decision-making is influenced by background-related knowledge structures that emerge from culture, ethnicity, nationality (e.g., Williams & Gregoire, 2015; Mohr & Batsakis, 2018), and knowledge structures related to identity and specific mindsets (e.g., Jiang et al., 2018; Augusto-Felicio et al., 2016). Experience from different sources (e.g., international or domestic experience) can have distinct impacts on internationalization-related decision-making (e.g., Hätönen, 2009; Hong & Lee, 2015).	What is the relationship between organizational experience from different sources, and what is the level of overlap among them? How do background-related knowledge structures moderate the influence of identity-based knowledge structures, and vice versa? How does the heterogeneity in board members' knowledge structures impact internationalization? How do the conflicting perceptions and preferences of individual managers influence the use of different knowledge structures?

Table 8. The main research streams and their challenges in the cognitive internationalization literature described in Article I.

<b>Perceptions and sense-making</b>	Perceptions and sense-making are mainly examined in terms of how an organization perceives its external environment, but research regarding how a firm perceives its intra-organizational affairs and how external actors perceive a firm's image, reputation, or category is scarce.	How is internationalization influenced by external actors' perceptions of a firm's image, reputation, or categorization? How is internationalization influenced by intra-organizational perceptions (e.g., tensions, capabilities)?	Perceptions of the external environment's influence on the location and entry-mode choices (e.g., Kraus et al., 2015) as well as the degree of internationalization (e.g., Kiss et al., 2013). Perceptions of intra-organizational affairs, such as internal tensions (e.g., Asakawa, 2001), capabilities (e.g., Cahen et al., 2016), and performance (e.g., Zhang et al., 2015), influence the internationalization process. External actors' perceptions of a firm influence the firm's performance in foreign markets (e.g., Chaney & Gamble, 2008) and its reputation benefits/losses (e.g., Borda et al., 2017).	Do managers' strong perceptions of their firm's own reputation or image moderate the perceived uncertainty in the target market? How do external actors categorize internationalizing firms, and how does this influence internationalization? How do managers' perceptions of their firm's own category influence internationalization? How do organizations and managers perceive and make sense of what should be learned?
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The article contributes to the literature on the cognitive foundations of firm internationalization by systematically analyzing and organizing the literature. It provides a solid basis for cumulative knowledge building in future research by (1) identifying the underexplored research areas that are critical to the Uppsala-based understanding of firms' internationalization processes and (2) suggesting methodological guidelines for future explorations of the cognitive foundations of firm internationalization.

First, the article describes the underexplored research areas and shows that the identified theoretical shortcomings in the literature have critical consequences for the Uppsala-based understanding of how firms expand to foreign markets. As a result, the article provides avenues for future research that could explore these gaps to complement and reinforce the Uppsala-based understanding of firm internationalization. This is a significant contribution because the current understanding of how firms expand to foreign markets is heavily influenced by the Uppsala model. In particular, the findings regarding the limited understanding of learning at the level of individual decision makers and the

influence of this limitation on the learning and knowledge transfer at the organizational level are troublesome, as the understanding of an individual manager's role is needed for understanding the transitions between the stages of the Uppsala model (e.g., Coviello et al., 2017). In addition, more research on individual-level knowledge structures is needed to understand how individuals mediate the use and development of organizational-level knowledge structures. This is because individual-level knowledge structures and organizational-level knowledge structures are not always similar. There can be tensions between them that negatively influence emerging internationalization (Cui, Li, & Li, 2013). However, individual-level knowledge structures are studied much less than organizational-level knowledge structures. Altogether, the existing literature has not explored all the central elements of the Uppsala-based understanding of firm internationalization. The findings of this study help to identify these gaps.

Second, the article outlines the possibilities provided by untapped methodological alternatives for exploring the cognitive foundations of firm internationalization. The article suggests that the microfoundational perspective opens up new avenues for future research on the topic. This is because firm internationalization is a multilevel phenomenon that emerges based on individual managers' decision-making under the influence of organizational and industry influences; therefore, the microfoundational perspective could help to explore the relationships and influences between different analytical levels. For instance, the microfoundational perspective could help show how the individual level mediates the influences between different analytical levels and how experiences, learning, and knowledge can be transferred within an organization (e.g., Asmussen, Foss, & Pedersen, 2013; Malik, 2013). In addition, the microfoundational perspective also encourages investigating a phenomenon's causal relationships, its underlying cogs and wheels (e.g., Foss & Pedersen, 2016). This resonates with the recent methodological initiatives in international business literature that highlight the role and potential of causal explanations, which, according to Welch et al. (2011), could significantly advance the field.

## Article II. Studying cognition through decision-makers' characteristics: Insights from international business research

Managerial and organizational cognition research has a long tradition of studying managers' cognitions via observable characteristics that are used as proxies for the underlying cognition. Such studies often seek to access cognitions by looking at managers' prior experience, demographic characteristics, education, and tenure (e.g., Eisenhardt & Bourgeois, 1988; Carpenter & Fredrickson, 2001; Hambrick, 2007). However, this research stream has, to some degree, overlooked the cognitive differences that can be traced to managers' cultural, national, ethnical, and geographical characteristics. In international business research, the influence of cultural, national, ethnical, and geographical characteristics

on firm internationalization has been studied more rigorously than in the management literature—cultural, national, ethnical, and geographical characteristics have been found to systematically influence what kind of experiences an individual will have and what kind of personality and mental structure will emerge; consequently, cultural, national, ethnical, and geographical characteristics can be used to predict managerial behavior (e.g., Williams & Gregoire, 2015; Mohr & Batsakis, 2018). While these characteristics are commonly studied in the field of international business, the generated insights have not been fully integrated into the broader literature on managerial and organizational cognition. Therefore, the purpose of Article II was to review international business literature on managers' cognitive differences that stem from cultural, national, ethnical, and geographical characteristics and to introduce the produced insights into the broader literature on managerial and organizational cognition. This was done by reviewing 40 internationalization studies that focused on managers' cognitive differences related to cultural, national, ethnical, and geographical characteristics.

The main findings of the article show that the international business literature has used cultural, national, ethnical, and geographical characteristics to produce original upper echelons-oriented research on (1) cognitive distances, (2) cognitive structures, (3) the legacy of the home country, and (4) tolerance for cognitive differences. First, the literature on the cognitive distances stemming from cultural, national, ethnical, and geographical characteristics has shown that cultural, national, ethnical, and geographical characteristics have a relatively systematic influence on the development of managers' cognitive structures, which often results in cognitive distances between two or more individuals or entities with different cultural, national, ethnical, and geographical characteristics (e.g., Håkanson, Ambos, Schuster, & Leicht-Deobald, 2016; Mohr & Batsakis, 2018). Such distances can have major impacts on firms' international operations (e.g., Johanson & Vahlne, 1977; Brouthers, 2002). The central premise is that cognitive distances can cause problems in international operations because differences in cognition lead to differing interpretations of situations and the world in general, which can hamper mutual understanding and communication. The most studied types of distance in international business literature have been cultural distance, psychical distance, and institutional distance (e.g., Boeh & Beamish, 2012; Håkanson et al., 2016; Mohr & Batsakis, 2018).

Second, the literature on the cognitive structures that can be linked to managers' cultural, national, ethnical, and geographical characteristics is based on the idea that managers' cognitive structures develop under the influence of the managers' environments and, rather than being universal, are strongly linked to particular environments. This kind of research has produced unique insights into mindsets, particular forms of cognitive structures that are used to create interpretations of the surrounding world (e.g., Jiang, Ananthram, & Li, 2018). The most commonly studied mindsets are domestic and global. Domestic mindset refers to a cognitive structure that is based on domestic experience and can be useful for understanding the domestic environment but leads to poor assessments and understanding

of foreign environments (e.g., Nadkarni, Hermann, & Perez, 2011). Global mindsets are cognitive structures based on international experience and encapsulate the capabilities that facilitate operating in environments that differ in terms of cultural, national, ethnical, and geographical characteristics (Jiang et al., 2018). The literature mainly agrees that mindsets influence firms' internationalization activities (e.g., Bouquet, 2005; Levy, 2005; Nummela, Saarenketo, & Puumalainen, 2004), but the results have been conflicting. For instance, while the global mindset is argued to shape the internationalization process (e.g., Levy, 2005), scholars have also claimed that a direct relationship between mindsets and internationalization strategies may not exist (e.g., Bouquet, 2005).

Third, the literature on the legacy of the home country inspects how an organization's home country shapes the firm's internationalization process. This body of research builds on the premise that countries have different attributes that shape how companies and their behaviors and capabilities emerge (e.g., Marano, Tashman, & Kostova, 2017; Pisani, Muller, & Bogatan, 2018). For example, Hendriks, Slangen, and Heugens (2018) have argued that firms with successful sales records in domestic markets may have lower tolerance for uncertainty in foreign markets. These attributes also influence how a company is perceived in other countries or areas and whether such perceptions have positive or negative impacts on the firm's international expansion (e.g., Chaney & Gamble, 2008; Jean, Tan, & Sinkovics, 2011; Borda et al., 2017). For instance, foreign firms may enjoy certain reputation benefits in economically advanced areas in China but not in less economically developed areas.

Fourth, the literature on tolerance for cognitive differences seeks to capture insights related to coping with and tolerating issues related to cognitive differences. For instance, Puthusserry, Child, and Rodrigues (2014) showed that cognitive differences related to cultural backgrounds are easier to manage than the ones that stem from institutional factors. The article pointed out that while work on tolerance for cognitive differences is important to practicing managers in organizations, the topic is severely underexplored.

Article II contributes to the literature on managerial and organizational cognition by reviewing and organizing the research on managers' cognitive differences that stem from cultural, national, ethnical, and geographical characteristics. The article's first main contribution is the elaboration of a more coherent understanding of what has been studied regarding managers' cultural, national, ethnical, and geographical -related cognitive differences in the international business literature and the proposition that this improved understanding should be integrated into the managerial and organizational cognition literature. More specifically, international business research has generated insights into the cognitive differences stemming from managers' cultural, national, ethnical, and geographical characteristics that have not made their way into the cognitively oriented management literature. The insights regarding (1) cognitive distances, (2) cognitive structures, (3) the legacy of the home country, and (4) the tolerance for cognitive differences can enrich the managerial and organizational cognition literature and enable a better understanding of organizational heterogeneousness. In addition, cognitively oriented research has explored

knowledge structures in both the management and the international business literature but from different perspectives. The managerial and organizational cognition literature could especially benefit from the findings of international business research on the knowledge structures that are based on managers' cultural, national, ethnical, and geographical-related characteristics. Second, the article identifies research gaps that provide interesting opportunities for future research. The most important gap is the lack of multidisciplinary research that operates at the intersection of cognitively oriented research from the fields of international business and management. Also, as the findings indicated that the existing literature on coping with cognitive differences is scarce, research on this topic could produce worthwhile new developments.

### Article III. Heuristic decision-making in firm internationalization: The influence of context-specific experience

Internationalization decisions are often constrained by a notoriously complex and uncertain information environment. In this volatile context, heuristics are argued to be able to facilitate decision-making by providing coherence and guidance in unfamiliar situations (e.g., Bingham & Eisenhardt, 2011; Bingham & Halebian, 2012), despite the notion that this positive influence of heuristics depends on prior context-specific experience (Maitland & Sammartino, 2015a). Indeed, the influence of context-specific experience on the creation, development, and deployment of heuristics during international expansion remains underexplored. While prior research acknowledges the importance of context-specific experience (e.g., Prashantham & Floyd, 2012; Jones & Casulli, 2014), empirical studies rarely isolate, categorize, or differentiate prior international experience based on the context and source of that experience; rather, all types of experience are bundled together and considered equal (e.g., Bingham, 2009; Autio, George, & Alexy, 2011). This lack of precision in examining the influence of experience is problematic because prior internationalization experience may not lead to enhanced decision-making abilities if the experience is acquired from contexts that do not match the current decision-making environment (e.g., Jones & Casulli, 2014).

Therefore, Article III explores the relationship between managers' context-specific experience and heuristic decision-making in firm internationalization by focusing on the accumulation of context-specific experience and the latter's influence on the development of heuristic decision-making. By using a qualitative and inductive approach to case research (e.g., Gioia et al., 2013), the article examines top management teams of two Finnish SMEs that are conducting their first international expansions without prior managerial experience in such expansions.

The article's findings describe the development process of heuristic decision-making during SMEs' first internationalization undertakings and show how context-specific



experience shapes this process. The insights were transformed into a theoretical model, which is illustrated in Figure 2. The main point of the model is that the positive impact of heuristics on decision-making can only be harnessed after a sufficient level of context-specific experience is accumulated. The managers must surpass this experience threshold by acquiring practical knowledge of the relevant foreign markets, entry modes, and internal capabilities, which are needed in developing heuristics that can be used to address the core questions related to internationalization. This transformation of experience into usable heuristics, however, requires a successful trigger event that would force managers to reflect on their situation in light of the accumulated experience instead of relying on the previous mental models. In both studied cases, the trigger event was the failure of the initial business plans.

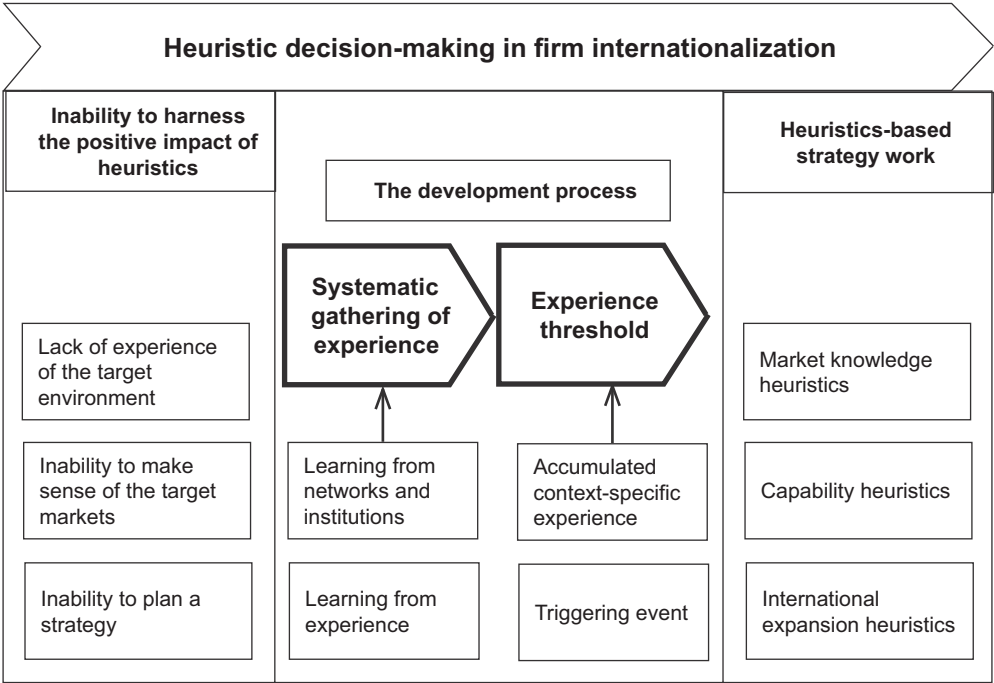


Figure 2. The model of heuristics decision-making in firm internationalization set forth in Article III.

Article III contributes to the literature on the cognitive foundations of firm internationalization (e.g., Bingham & Haleblan, 2012; Prashantham & Floyd, 2012; Jones & Casulli, 2014) by constructing a theoretical framework that provides novel insights into the relationship between managers’ context-specific experience and heuristic decision-making in firm internationalization. By showing how managers’ of an SME without prior international experience becomes capable of harnessing advantages of heuristics in decision-



making during their first international expansion, the model advances the existing literature in four ways.

First, while the findings are consistent with prior research in showing that heuristics can facilitate internationalization-related decision-making (e.g., Bingham & Eisenhardt, 2011; Maitland & Sammartino, 2015a) and that heuristics can provide coherence and direction in unfamiliar markets (e.g., Bingham & Halebian, 2012), they advance the literature by showing that a sufficient level of context-specific experience is needed before heuristics benefits can be accessed. The article also emphasizes the importance of context-specific experience, which is acknowledged in the literature (e.g., Prashantham & Floyd, 2012; Jones & Casulli, 2014) but rarely investigated in empirical studies (e.g., Bingham, 2009; Bingham & Eisenhardt, 2011; Autio et al., 2011).

Second, the article shows that some of the known managerial-learning mechanisms are also at work in SMEs' early international expansion efforts. More specifically, a lack of experience can lead to uncertainty, which motivates managers to systematically learn from the target environment (e.g., Alvarez & Barney, 2005; Autio et al., 2011), and managers can use multiple learning methods simultaneously in this process (e.g., Park & Harris, 2014).

Third, the study's most surprising finding and major contribution is that a certain level of context-specific experience must be accumulated before experience can be transformed into useful heuristics. This indicates the existence of an experience threshold, which must be met before management teams can harness the benefits of heuristic decision-making in new environments. In addition, while prior literature claims that experience leads to learning and better decision-making abilities (e.g., Bingham, 2009; Autio et al., 2011; Bingham & Eisenhardt, 2011), this finding shows that the relationship between experience and heuristics is more complex than suggested in the literature (e.g., Bingham & Eisenhardt, 2011; Bingham & Halebian, 2012; Maitland & Sammartino, 2015a).

Fourth, and in relation to the previous point, the article also points out that crossing the experience threshold does not automatically transform accumulated experience into heuristics. Rather, this process requires a trigger event that would allow managers to reflect on their current situation and update their mental models using the experience that they have acquired since last updating their mental models. Prior literature has demonstrated the positive impact of failures on the learning of capabilities and heuristics (e.g., Autio et al., 2011; Bingham & Halebian, 2012), but the findings of Article III provide a deeper understanding of the negative stimuli's influence on learning. Failure acts as a trigger event that starts a transformation in which mental models are reconstructed using the experience that is acquired during a potentially longer period before the failure itself.

## Article IV. Temporality and firm de-internationalization: Three historical approaches

The purpose of the article is to advance process-oriented international business research by showing how different historical research approaches can enrich our understanding of temporality in international business. Time and temporality have been central to the theories that explain how internationalization processes unfold (e.g., Johanson & Vahlne, 1977) but have mostly been approached as implicit and taken-for-granted phenomena (e.g., Hurmerinta et al., 2016). As a result, recent process-oriented internationalization research has attempted to unpack the role of time and temporality in the emergence of international activities (e.g., Welch & Paavilainen-Mäntymäki, 2014; Welch et al., 2016; Metsola, Leppäaho, Paavilainen-Mäntymäki, & Plakoyiannaki, 2020). The article's central argument is that historical approaches can significantly enhance our understanding of firm internationalization processes because history and its connections to the present and future are critical for understanding processes and processuality (e.g., Reinecke, Suddaby, Langley, & Tsoukas, 2021). Potential of historical approaches in exploring processes has been noted in the international business research; consequently, recent studies have drawn on historical research to examine the processual nature of international activities (e.g., Buckley, 2020; Cheung, Aalto, & Nevalainen, 2020; Karhu, 2020). However, historical research is a heterogeneous field, with researchers employing substantially different philosophical assumptions, a fact that also reflects the variety of the examined topics, possible data, and analysis techniques (e.g., Decker, Kipping, & Wadhvani, 2015). However, this diversity has not been capitalized upon in studying temporality in international business. Therefore, Article IV illustrates how the diversity of historical approaches, which arises from different philosophical assumptions, can be used to analyze temporality in firm de-internationalization unfolding over time.

To achieve this goal, historical approaches were organized into the following three categories: (1) the comparative historical analysis approach, (2) the interpretive history approach, and (3) the poststructuralist history approach. These approaches were then used to analyze the same historical account of UPM's international expansion to Italy, its failure, and the consequent de-internationalization and to illustrate how different approaches can be used to analyze the same historical accounts and what kind of insights can be generated using this strategy.

The main findings show that the use of different approaches can provide a richer and fuller understanding of a firm's internationalization and de-internationalization processes and their temporality. The first analysis, based on the comparative historical analysis approach, revealed the causal structure of the events linked to UPM's de-internationalization process and provided a deeper understanding of the temporality of the organizational mechanisms that drove this process. In particular, the findings provide novel insights into the relationship between specific aspects of temporality (i.e., timing, order, duration, tempo, acceleration) and the mechanisms driving the de-internationalization process. First, our

findings show that the timing and order of the mechanisms are important determinants of how the de-internationalization process unfolds. The timing and order of the mechanisms are especially important for the path-dependent sequence of events that underlie the UPM's de-internationalization. We believe that these insights can advance earlier research on how intra-firm path dependency emerges (e.g., Vahlne & Johanson, 2017). Second, the temporal length of the mechanisms' effects varied, as some mechanisms created fast and visible changes and others generated gradual and less noticeable changes. In sum, the comparative historical analysis provided ways to explore the links between temporality and causality.

The second analysis drew on the interpretive approach and provided novel insights into the role of the prevailing zeitgeist, the spirit of the time, in firm de-internationalization processes. More specifically, the analysis showed that zeitgeist can drive managers to pursue seemingly irrational paths, such as following other companies in their investment decisions instead of carefully reflecting on the suitability of a particular investment for the company. These insights show that the interpretive approach provides tools for generating new understandings of temporality's role in why a decision was made against the backdrop of the prevailing zeitgeist by revealing the narratives that underlie decisions. This enables researchers to focus on the rationales that shape decisions, even the disastrous ones.

The third analysis was based on the poststructuralist approach and illustrated how the internationalization and de-internationalization processes are shaped by decision makers' strong subjectivities, in which multiple temporalities come together to form a chaotic combination that underlies decisions and behaviors. The generated insights illustrate that the poststructuralist approach provides tools for examining individuals' subjective understandings and underlying psychological drivers that arise from personal characteristics and unconscious motives, which are often built on traumas, tragedies, and deep desires. Therefore, the findings show that explaining firm de-internationalization processes using reasons that stem from the organization and its needs can only produce a partial understanding of what happens because decision makers' subjective rationales are ignored.

The findings contribute to the literature by providing methodological guidelines for analyzing temporality in process-oriented internationalization research and by advancing theory and research on firm de-internationalization. Regarding the methodological guidelines, the article elaborates on the power of historical research approaches that draw on diverse philosophical orientations in analyzing the temporality of firms' internationalization and de-internationalization processes. This is an important contribution because, like international business literature in general (e.g., Welch & Piekkari, 2017), prior process-oriented internationalization research has mainly been influenced by qualitative positivist and objectivist assumptions (e.g., Chetty, Johanson, & Martin, 2014; Welch & Paavilainen-Mäntymäki, 2014). According to Nielsen et al. (2020), the use of only one philosophical paradigm may lead to partial understanding and increase the risk of errors. Therefore, the proposed diversity of approaches offers ways to achieve a richer and more

complete theoretical understanding of firm internationalization and answers the calls for methodological pluralism in qualitative international business research (e.g., Welch et al., 2011). In particular, interpretive and poststructuralist historical approaches provide more subjective perspectives for exploring temporality. In the case of the comparative historical analysis approach that draws on the realist perspective and is largely based on assumptions similar to the ones underpinning prior process-oriented internationalization research based on qualitative positivism, the contribution has to do with a set of historical research tools that can further advance the research inspired by qualitative positivism; event structure analysis and mechanism-based theorization constitute new opportunities for exploring the temporality of firms' internationalization and de-internationalization processes.

With respect to advancing theory and research on firm de-internationalization, the article reveals new drivers (reasons and mechanisms) of firm de-internationalization. This is a major contribution to the de-internationalization literature because our understanding of why, when, and how firms end up engaging in international withdrawals remains poor (e.g., Benito & Welch, 1997; Turner & Gardiner, 2007; Freeman, Deligonul, & Cavusgil, 2011). The causal structure of the de-internationalization process and the underlying mechanisms revealed by the comparative historical analysis approach advance the existing scholarship by detailing the mechanisms of how the firm de-internationalization unfolds instead of identifying specific causes for the process (e.g., Hamilton & Chow, 1993; Vissak & Francioni, 2013). The insights generated using the interpretive approach advance our understanding of the reasons for de-internationalization by highlighting the significant role of contextual forces, such as the prevailing zeitgeist, in shaping why historical actors ended up making certain choices that lead to de-internationalization. These insights go beyond the existing literature, which suggests that de-internationalization occurs due to specific organization-related reasons, especially financial ones (Hamilton & Chow, 1993; Swoboda, Olejnik, & Morschett, 2011), and explain why decisions are made that eventually lead to poor financial performance and international withdrawal. Finally, the poststructuralist analysis shows that de-internationalization can result from decision makers' unconscious motives and personal issues, which increases our understanding of the non-financial reasons for firm de-internationalization. These insights specifically advance the work of Berry (2013), who contested the common understanding that financial reasons often drive international withdrawals by pointing out that a significant portion of international exits take place without poor financial performance.

## Discussion and conclusions

### Theoretical contributions

This dissertation argues that firm internationalization research needs to focus more on individual managers and their cognitions to better understand firms' internationalization efforts and the actual realities and challenges faced by managers during international expansions. To advance this agenda, the dissertation studies the cognitive foundations of firm internationalization and contributes to the literature in two ways. First, the dissertation improves our understanding of how cognitive foundations shape firm internationalization by organizing and synthesizing the existing literature and by empirically investigating new ways in which cognitions drive internationalization via the philosophical perspectives of qualitative positivism, interpretivism, and poststructuralism. Second, the dissertation proposes ways to further the research on the cognitive foundations of firm internationalization by revealing research gaps that constitute fruitful avenues for future research and by arguing that subjective approaches, historical research methods, and the microfoundational approach can generate new insights to advance the field. To discuss how the dissertation expands the internationalization research in a broader sense, I will consider how my findings contribute to the Uppsala-based understanding of firm internationalization, the dominant theoretical framework or paradigm (e.g., Håkanson & Kappen, 2017) guiding the research on firm internationalization.

In the rest of the chapter, I will answer the two RQs presented at the beginning of the study: (1) "How do cognitive foundations influence firm internationalization?" and (2) "How can we further advance the research on the cognitive foundations of firm internationalization?"

## RQ1: How do cognitive foundations influence firm internationalization?

This dissertation improves our understanding of how cognitive foundations shape firm internationalization. First, by reviewing the existing literature, the dissertation fosters an integrative understanding of prior research on the influence of cognitive foundations on firm internationalization. Articles I and II organize and categorize prior research and, consequently, provide an easily understandable account of the cognitive factors that influence firm internationalization. More specifically, the findings of these review studies provide a better understanding of the different kinds of cognitive structures and processes that underlie managers' decision-making processes during firm internationalization. I argue that this is a significant contribution because the research examining firm internationalization via cognitive constructs is a relatively new research stream. As pointed out in Article I, before the 2000s, scholarship on this topic was almost non-existent. Afterwards, the field has expanded significantly, with new cognitively oriented internationalization research being published more frequently. However, while the field is growing rapidly, it has remained unorganized, lacking a coherent overview of what is known about how cognitions influence firms' international operations. Therefore, organizing the existing knowledge has important implications for the field, as this helps understand and assimilate the developed knowledge. The developed body of research must be actively organized and managed so that the scholarly community as well as practicing managers can benefit from this knowledge (e.g., Paul & Rialp-Criado, 2020).

Second, I build on the newly developed overview and proceed to empirically reveal previously uncharted ways of how managers' cognitions drive firm internationalization using the following three philosophical lenses: qualitative positivism, interpretivism, and poststructuralism. As Nielsen et al. (2020) argued, it is necessary to use multiple methodological alternatives when examining a particular phenomenon to fully understand it. Specific philosophical paradigms and related research methodologies can only reveal a certain part of the examined phenomenon. Like lanterns in the dark, particular paradigms can shed light on certain areas, but much remains concealed. Consequently, this dissertation provides a more comprehensive view of the cognitive factors that determine how the internationalization process unfolds, which advances cognitive internationalization research because, like international business research in general, the research on this topic has mainly been based on the positivistic tradition and has used the methods related to this approach (e.g., Piekkari et al., 2009; Lundgren & Jansson, 2016; Welch & Piekkari, 2017). Altogether, I maintain that the dissertation also expands the field's methodological plurality and thus answers the multiple calls to enrich the philosophical and methodological foundations of international business research (e.g., Welch et al., 2011; Nielsen et al., 2020).

From the qualitative positivist perspective, the findings provide a window into managerial decision-making processes during firms' international expansion by describing new mechanisms related to how managers learn from their experience and the role of failure in this learning process. The existing literature on the cognitive foundations of internationalization has studied how accumulated experience can lead to learning and

better performance in firm internationalization (e.g., Bingham & Eisenhardt, 2011; Jones & Casulli, 2014) and how failures can accelerate this learning (e.g., Autio et al., 2011; Bingham & Halebian, 2012). My findings contribute to the literature by showing that the failures themselves are not necessarily the source of the observed learning (e.g., Bingham & Halebian, 2012); rather, failures work as trigger events that initiate the transformation of experience—potentially acquired over a longer timespan than the “failure”—into usable forms, such as updated mental models or heuristics. Furthermore, I maintain that these findings also contribute to the Uppsala-based understanding of firm internationalization by revealing critical individual-level cognitive mechanisms that underpin the learning process during international expansion, a central yet scarcely investigated aspect of the Uppsala-based understanding of firm internationalization (e.g., Vahlne & Johanson, 2020). I consider this to be an important addition to the Uppsala-based understanding of firm internationalization because we know relatively little about the details and dynamics of how shifts from one stage to another in the firm internationalization process happen at the level of individual managers and what kind of role managerial learning plays in this process (e.g., Coviello et al., 2017).

The findings produced using the interpretive lenses in Article IV show that contextual dynamics can lead managers to make seemingly irrational decisions—for instance, managers can follow prevailing trends and imitate other firms in their investment decisions instead of carefully considering the situation themselves. These insights help to understand why managers make certain decisions and how their interpretations of the prevailing contextual dynamics influence their decision-making processes. This advances the existing cognitively oriented internationalization literature because the current understanding is a result of a more positivist approach, whereby managers’ cognitively produced perceptions are presented in a structured form (e.g., Maitland & Sammartino, 2015a; Clark et al., 2018), which is incapable of fully capturing the depth of decision makers’ perceptions of reality (e.g., Prasad & Prasad, 2002). Consequently, much information is lost when the topic is examined only via structural and objective lenses. This reliance on such approaches in studying managers’ cognitions is especially problematic because the underlying assumption in the literature is that decision makers are boundedly rational and have distinct cognitive abilities to make sense of their environment, which leads them to interpret and experience their surrounding world in different and unique ways (e.g., Aharoni et al., 2011; Maitland & Sammartino, 2015b). Therefore, the understandings produced using interpretive lenses offer novel insights into how managers’ cognitions shape firm internationalization and enable a better analysis of managers’ unique and personal situational interpretations that shape their decisions. With respect to internationalization research in a broader sense, I believe that these insights also advance the Uppsala-based understanding of firm internationalization by showing that both the contextual dynamics and managers’ unique perceptions of these contextual dynamics play an important role in firm internationalization. This is because the Uppsala-based understanding builds on the notion that managers perceive the distance between the target market and their own market and that this interpretation of the distance



influences their expansion choices (e.g., Johanson & Vahlne, 1977). In short, managers' perceptions have a significant impact on their internationalization choices. However, the research guided by the Uppsala paradigm downplays the role of managers' perceptions by mainly inspecting firm internationalization processes via relatively objective lenses at higher analytical levels than that of individual managers (e.g., Coviello et al., 2017; Vahlne & Johanson, 2020), thus overlooking the role of managers' subjective interpretations.

Building on the poststructuralist approach, specifically by drawing on Lacanian psychoanalysis, the findings show that underlying cognitions can shape firms' internationalization processes via managers' strong subjectivities, as decision makers' choices are greatly influenced by seemingly irrelevant events and experiences from their past. Traumatic childhood memories and twisted relationships with other people can influence managers' decision-making processes in business-related matters, even though such decisions are not directly related to past traumatic events and experiences. I claim that these insights advance the understanding of the cognitive foundations of firm internationalization because the existing literature mainly explains firms' decisions related to international operations using financial rationales or reasons to do with organizational needs (e.g., Hamilton & Chow, 1993; Berry, 2013; Swoboda et al., 2011), thus neglecting the complex relationship between the decision makers' personality, life experiences, and character and the choices made. In general, I believe that the poststructuralist approach is underused in exploring managerial decision-making processes in the context of firm internationalization. This is a clear shortcoming because poststructuralist research in management and organization studies has explored the influences related to decision maker's character and has shown that such influences play a critical role in how decision-making processes unfold (e.g., Stein, 2007; Bicknell & Liefoghe, 2010). In terms of internationalization research in general, the insights based on the poststructuralist approach advance the Uppsala-based understanding of firm internationalization by proposing that the international-expansion decisions may not always arise from the decision makers' perceptions of uncertainty, the distance between countries, or the possessed knowledge base, as the Uppsala paradigm suggests (e.g., Johnson & Vahlne, 1977; Vahlne, 2021). This is an important contribution that can improve our capability to analyze how firms' internationalization processes unfold in real life, where decisions are based on the cognitions of inherently flawed and peculiar human beings instead of perfectly rational agents.

## RQ2: How can we further advance the research on the cognitive foundations of firm internationalization?

The findings of this dissertation provide novel and much-needed insights on how to advance research on the cognitive foundations of firm internationalization. First, the dissertation identifies the topics that have been underemphasized or even ignored in the literature. More specifically, this dissertation shows that managers' cognitive processes and structures



that underlie firm internationalization have been mainly studied at the organizational level, while research at the managerial level has remained scarce. In addition, while scholars have examined the variations in managers' cognitive structures and the conflicts that such variations can lead to, we know very little about ways of coping with the ill-natured consequences that arise from managers' cognitive differences. By pointing out these gaps in the existing literature, I facilitate collective knowledge building over time by providing interesting directions for future research in a field that is new and rapidly expanding. This is an important contribution because cognitively oriented firm internationalization research, to the best of my knowledge, has not been systematically reviewed before, and, as Paul and Rialp-Criado (2020) have pointed out, identifying knowledge gaps for future research is a critical part of scientific development in a particular field because this process can serve as a foundation or even a springboard for future research. I maintain that the Uppsala-based understanding of firm internationalization would especially benefit from increased focus on individual managers and their role in how firms' internationalization processes unfold. This is because the research guided by the Uppsala paradigm has traditionally focused on the firm level and overlooked the role of individual managers in firms' internationalization processes (e.g., Coviello et al., 2017; Vahlne & Johanson, 2020), which is surprising because the central assumptions of the Uppsala paradigm—for instance, regarding decreases in perceived uncertainty through learning—claim that individual managers mediate firm-level processes.

Second, the dissertation provides new philosophical and methodological alternatives for exploring the cognitive foundations of firm internationalization. This is a significant contribution because the lack of diversity in perspectives and approaches is a problem in international business research. Piekkari et al. (2009) argued that international business-related case research is mainly based on qualitative positivist assumptions at the expense of other approaches and thus lacks philosophical plurality, a critical aspect of scientific inquiry that determines what methodological alternatives can be used and what kind of insights can be generated. The same applies to methodological diversity. According to Nielsen et al. (2020), international business research badly needs more methodological plurality because the diversity of the methods used has declined, as research has been centered on a limited number of dominant paradigms, which restricts the methodological alternatives. These shortcomings are alarming and critical because overdependence on a narrow set of philosophical paradigms or methodological alternatives can lead to an increased risk of biases and errors as well as a partial understanding of the studied phenomenon due to the inherent limitations of the selected approaches (Nielsen et al., 2020). Moreover, the selected philosophical and methodological alternatives, to some degree, influence the generated findings (e.g., Burrell & Morgan, 1979). Therefore, to better capture the studied phenomenon, the phenomenon must be inspected using multiple philosophical and methodological perspectives (e.g., Allison, 1969; Kellert et al., 2006; Frost et al., 2010). In fact, mine is not the first plea to broaden the methodological base of international business

research (e.g., Welch & Piekkari, 2017; Welch et al., 2011). In sum, given these limitations regarding the comprehensive use of philosophical and methodological approaches, this dissertation argues in favor of employing multiple approaches in studying the cognitive foundations of firm internationalization. In particular, I suggest that (1) subjective approaches, (2) historical research approaches, and (3) the microfoundational approach constitute exciting opportunities and can lead to new insights.

**Subjective approaches.** Approaches adopting more subjective perspectives constitute untapped opportunities for studying managers' cognitions that shape firms' internationalization processes. More specifically, I maintain that the interpretive and poststructuralist perspectives can lead to a richer and fuller understanding of the subjective aspects of firms' internationalization processes. While the former is based on the assumption that social reality can only be accessed via decision makers' subjective interpretations (e.g., Guba & Lincoln, 2005; Doornich, 2018), the latter claims that reality is socially constructed and that nothing exists outside our means of constructing this social reality, such as texts and language (e.g., Harrison, 2006; Alvesson et al., 2011). These approaches offer ways of generating novel understandings of decision makers' cognitions compared to the positivistic perspective that predominates in international business research (e.g., Piekkari et al., 2009; Lundgren & Jansson, 2016). I emphasize that these subjective approaches do not refer to a particular set of methods but rather to the broader paradigms that guide the research process, including the selection of suitable methodologies, as different methods and approaches are not compatible with all philosophical assumptions (e.g., Burrell & Morgan, 1979).

The interpretive approach is interested in understanding the decision-making processes through the decision makers' subjective experiences of such processes instead of explaining the latter via causal factors and relationships (e.g., Guba & Lincoln, 2005; Prasad, 2018). This approach thus enables researchers to explore decision makers' unique and individual ways of perceiving their surrounding world and provides a better understanding of how cognitions affect these perceptions and interpretations, which then act as a foundation for decision-making. The use of the interpretive approach could significantly advance the field because while the cognitively oriented internationalization research is based on assumptions about boundedly rational decision makers (e.g., Maitland & Sammartino, 2015b), the qualitative positivist approaches that currently dominate the field of international business (e.g., Lundgren & Jansson, 2016) are unable to adequately explain the social and psychological factors underlying managers' decisions (e.g., Stoian, Dimitratos & Plakoyiannaki, 2018). Indeed, scholars have studied how cognitions impact managers' internationalization-related decisions, but the explanations have been rather objective and structural (e.g., Maitland & Sammartino, 2015a; Azam, et al., 2017; Clark et al., 2018), and interpretive approaches could significantly increase our understanding of the cognitions' role in why the decision-makers decided something—that is, how personal interpretations and rationales intersect with contextual forces and shape decisions. The interpretive lenses also could help to understand how the managers subjectively perceives

the ongoing internationalization process and how experiences and interpretations of the unfolding internationalization influence the actual internationalization process (e.g., Lamb et al., 2011). I argue that the Uppsala-based understanding of firm internationalization could also benefit from the insights generated via the interpretive approaches because such approaches can enrich and deepen our understanding of managers' subjective perceptions of the resources necessary during internationalization, such as knowledge and experience, and their links to the internationalization process. More specifically, while Uppsala-based research rests on behavioral assumptions about development of managers' knowledge and perceptions of uncertainty (e.g., Johanson & Vahlne, 1977), such research mainly treats knowledge and perceptions as something objective and quantifiable and cannot adequately explain how managers' personal ways of framing situations influence their decisions.

The poststructuralist approach can help to better understand the role of decision makers' strong subjectivities and enable the critical questioning of the produced understandings and of the ways of producing these understandings (e.g., Harrison, 2006; Alvesson et al., 2011). Poststructuralist methods can throw light—through psychoanalysis, for instance—on how internationalization decisions are influenced by unconscious rationales and personal motives arising from decision makers' subjectivities, in which all aspects of a person's life—past experiences, traumas, and other events that are unrelated to the business decision at hand—blend into a disorderly compound, thus creating a situation where it is impossible to address business-related matters independently (e.g., Arnaud & Vidaillet, 2018). In other words, the choices related to firm internationalization may not arise from organizations' needs or rationales but from the personal and unique ways in which decision makers' cognitions have been formed (e.g., Stein, 2007); therefore, attempting to understand managers' decisions without considering their past experiences can lead to situations in which the reasons for the decisions are found in and linked to rationales that do not tell the whole story. For instance, psychoanalysis was used in Article IV to show how childhood tragedies and a dysfunctional father-son relationship can shape managers' decisions during firm internationalization in the strangest ways. As poststructuralist approach has been used very little in the existing literature, I believe that it could advance cognitive internationalization research by enabling the generation of novel insights about the subjective aspects that influence internationalization managers' decisions by questioning the existing understandings and potentially revealing issues for further considerations. I maintain that greater use of the poststructuralist approach could also improve the Uppsala-based understanding because the Uppsala framework mainly seeks to explain firms' internationalization processes via strictly organizational factors—for instance, the firm's knowledge base and its development in relation to the perceived differences of target markets (e.g., Johanson & Vahlne, 1977)—without accounting for the possibility that internationalization decisions are influenced by decision makers' strong subjectivities and personal motives. Using the poststructuralist approach, we can question whether the Uppsala framework is guiding our research work in the right direction or forcing a predetermined form based on business and management ideals upon our interpretations of firm internationalization (e.g., Harrison, 2006; Glynnos

& Stavrakakis, 2008). By drawing on the poststructuralist perspective, we can see that the internationalization-related interpretations of the situation and consequent decisions are not made based purely on business logic and management ideas; instead, such decisions are influenced by the highly subjective processes through which decision makers make sense of the world (e.g., Arnaud & Vidaillet, 2018).

**Historical research approaches.** Historical research approaches provide new ways of examining the cognitive foundations of internationalization. Such approaches treat decision-making processes as temporal interplays between decision makers, their characteristics, and contextual factors that influence choices. While historical research approaches have recently started to emerge in international business research (e.g., Jones & Khanna, 2006; Buckley, 2016; 2020; Cheung et al., 2020; Karhu, 2020), their potential for exploring decision-making processes and the underlying cognitions has not been fully harnessed or recognized. As cognitive processes that shape decision makers' choices unfold over time under the influence of contextual dynamics and past experiences, history and its links to managers' decision-making processes is a fundamental issue for understanding firm internationalization processes (e.g., Reinecke et al., 2021). I maintain that greater use of historical approaches can advance our understanding of managers' cognitions that underlie firm internationalization by offering new tools for examining time, the role of the past, and temporally embedded contextual drivers that influence firm internationalization, critical elements for internationalization-related decision-making that have been underemphasized in the existing literature. A better understanding of these elements can also enhance the Uppsala-based understanding of firm internationalization because their role is poorly understood in the current research guided by the Uppsala paradigm.

In terms of time, Hurmerinta et al. (2016) pointed out that while internationalization research, including the work based on the Uppsala paradigm, incorporates time, it does so in a rather implicit and taken-for-granted manner, which hampers our understanding of the role of time in firms' internationalization processes. Similarly, Buckley (2020) argued that, in the international business literature, the concept of time is used in multiple ways that are often misaligned and lead to misunderstandings and conflicts. As history researchers have debated and questioned the notion of time, I argue that cognitive internationalization research can be advanced by using history researchers' better understanding of time. Indeed, as elaborated in Article IV, historical research approaches provide multiple time-sensitive research techniques, such as historical comparative methods and narratives. These insights resonate with Buckley's (2020) message that time should be given more attention in international business research and that historical research methods provide apt tools to achieve this goal, but my findings go beyond Buckley's point by empirically elaborating how these methods of historical research can, in fact, capture time and temporality. More specifically, the comparative historical analysis methods allow scholars to construct event structures and timelines and to reveal causal mechanisms driving sequences of internationalization decisions, thus generating understandings of how series of decisions unfold over time, even in a path-dependent manner (e.g., Mahoney, 2004). Narratives can

reveal the story, the prevailing dynamics, and the zeitgeist behind decisions (e.g., Carr, 2001). More specifically, historical actors make sense of their environment by weaving multiple experienced events into coherent stories through narratives (Fan & Liu, 2021), thus the narratives can help to understand how the past is presented in the experiences of historical actors and how things make sense to them (Carr, 1986). In sum, as recent international business research has called for a richer contextual understanding in theorizing (e.g., Welch et al., 2011) in which time is seen as a critical contextual element (e.g., Hurmerinta et al., 2016), I believe that a better understanding of time can advance our knowledge of how decisions in firm internationalization by providing opportunities for richer contextual embeddedness. In the end, decisions are made over time under the influence of contextual forces that individuals interpret via their cognitive processes. Furthermore, future research and the consequent better conceptualization of time and temporality could also advance the Uppsala-based understanding of firm internationalization because currently, as Hurmerinta et al. (2016) pointed out, time and temporality have been treated rather vaguely and implicitly, despite their importance for an understanding that considers firm internationalization as something that unfold over time.

Historical research provides tools for examining the role of temporally embedded contextual drivers at a particular time point that shaped managers' choices. This is a valuable addition to cognitive internationalization research because the influence of such contextual factors on managers' internationalization decisions is rarely addressed in the literature. I believe that most of us can agree that the world is full of manias and group illusions—such as the Dutch tulip mania, the Dot-Com Bubble of the 2000s, and the currently unfolding Meme Stock mania—and that there is something in human behavior that creates these events and allows them to shape our decision-making, which makes it tempting to participate in such delusions. Article IV elaborated this in the context of firm internationalization by showing how UPM's decision to expand to Italy was influenced by the prevailing trend among the Finnish business elite that favored Italian markets. In managerial behavior, following others is connected to uncertainty—better to fail with others than to stick out as a loser (Vahlne, 2021). The problem is that the role of these kinds of contextual drivers that underlie the different shared understandings, illusions, and even manias is not considered in the main theories of firm internationalization. As historical researchers have long been interested in why something happened and have looked for explanations of contextual forces (e.g., Carr, 2001; Vaara & Lamberg, 2016), historical approaches could allow us to explore the contextual forces underpinning internationalization decisions, which would significantly advance the research on the cognitive foundations of firm internationalization. In particular, historical approaches improve the analysis of decision-making processes by taking into account the contextual dynamics that prevailed at specific time points and shaped how and why decisions were made (e.g., Carr, 2001). This is important because trying to make sense of past decisions using contemporary rationales may not lead to a correct or complete understanding of the situation because each time point is surrounded

by contextual forces that are unique to that particular time point and play a significant role in shaping the decision-making processes.

When it comes to the historical research approaches, it is important to note that different approaches can be incommensurable—that is, they are internally valid but cannot be evaluated using the same standards because the approaches are based on different assumptions regarding the nature of reality and knowledge. However, this should not be seen as a weakness because, as elaborated in Article IV, the rich and diverse opportunities that the historical research approaches provide for firm internationalization research arise precisely from their different underlying philosophical orientations and different methods.

**The microfoundational approach.** The microfoundational perspective can advance the cognitively oriented firm internationalization research based on qualitative positivism by providing a structural approach for examining how decisions emerge at the level of individual managers. A better understanding of such decision-making processes would be a significant step forward for the field because, as pointed out in Article I, the cognitively oriented internationalization research has focused on the firm level at the expense of the actual individual managers making the decisions. This is a notable shortcoming because, as Foss and Pedersen (2016) stated, firm-level events and actions can have multiple individual-level explanations. Therefore, while the firm level is and traditionally has been the main level of analysis in international business literature, focusing exclusively on the organizational level is insufficient for understanding how firm internationalization unfolds.

The microfoundational approach (e.g., Felin et al., 2015) provides apt tools for examining firm internationalization at multiple analytical levels simultaneously by considering internationalization via managers' decision-making processes, which are influenced by higher analytical levels, even those above the firm level, such as industry and culture. While the approach acknowledges the importance of all levels, it emphasizes the individual level because, in the end, individual managers make the decisions as well as mediate and concretize the influence of other levels (e.g., Felin et al., 2015).

This approach can help analyze decision-making processes and link them to the higher analytical levels that influence the process. Therefore, I maintain that the microfoundational approach can connect the insights into managers' cognitions with internationalization at the firm level. This kind of work would advance the Uppsala-based understanding of firm internationalization because the latter is inherently based on behavioral assumptions but has, for the most part, underemphasized the role of the actual managers behind the decisions (e.g., Coviello et al., 2017). This shortcoming has even been noted by the creators of the model. In a recent paper, Vahlne and Johanson (2020: 7) have emphasized that a better understanding of managers' psychological characteristics and their influence on firm internationalization could benefit the Uppsala-based understanding of firm internationalization because "firms, or rather managers of firms, have to act, and they will inevitably become 'victims' of at least some psychology-related limitations (including biases) affecting all of us—whether they like it or not." Indeed, the central pillars of the Uppsala-based understanding of firm internationalization (e.g., Johanson & Vahlne, 1977), such as learning and



knowledge development, are highly dependent on individual managers; therefore, the microfoundational approach can advance the current understanding of how these aspects shape firm internationalization at the level of individual managers. The microfoundational perspective can also help to further understand why firms internationalize incrementally rather than radically with risky maneuvers, one of the central assumptions of the Uppsala-based understanding of firm internationalization but one that is inadequately understood at the individual level. Vahlne and Johanson (2020) have suggested that directions for this kind of research could come from the strategic management literature, in which the cognitive foundations and microfoundations of strategic choices have been explored more than in international business research—for instance, Raffaelli et al. (2019) have studied how cognitive and emotional framing can explain why some firms reject radical changes and others do not.

Furthermore, the microfoundational approach emphasizes the importance of explaining studied phenomena by revealing the “cogs and wheels” of the process—that is, how firm-level phenomena are produced by the interactions between events and entities at the individual level (e.g., Hedström & Ylikoski, 2010). As discussed in Articles I and IV, while mechanism-based explanations are often conducted at the firm level, they could be used in a multilevel fashion to elucidate the role of individual managers and their decision-making processes in firm internationalization. I believe that this possibility offers intriguing opportunities for opening the black box of the firm internationalization research by revealing the underlying microlevel mechanisms of firm internationalization, which are currently underexplored. As a multilevel approach with an emphasis on the micro level, the microfoundational perspective can also advance the Uppsala-based understanding of firm internationalization by using the Uppsala model—or Uppsala paradigm due to its notoriously abstract and open-ended nature (e.g., Håkanson & Kappen, 2017)—as a starting point for further theoretical efforts meant to reveal the causal mechanisms driving managers’ decision-making processes. This is in line with Vahlne’s (2021) suggestion that the next step in developing the Uppsala-based understanding of firm internationalization should be the explication and testing of causal relationships. However, while Vahlne refers to causal relationships in general, I specifically emphasize the necessity of revealing the micro-level mechanisms driving the behaviors of individual managers who make internationalization-related choices.

## Managerial implications

This dissertation provides two interesting implications for practicing managers regarding the underlying cognitive foundations that shape managers’ behaviors and choices during the firm internationalization process. First, I claim that practicing managers need to understand and be aware of the fact that their decisions can be influenced by their underlying cognitions in a harmful way. In other words, while cognitive processes and tools often do work as

they should and lead to accurate decisions regarding firm internationalization, they can also result in decisions that are flawed or biased. Decisions can be notably driven by the unconscious and often undetected motives and drivers that arise from the decision makers' personalities and characters and are shaped by their personal histories and experiences. Underlying cognitive processes can also tip sense-making processes in the wrong direction, which may lead to misguided interpretations of the environment and, consequently, to ill-fitting choices. Awareness of cognition's critical role in shaping interpretations, understanding, and the consequent decisions can potentially prevent such misguided decisions. The problem, however, is that understanding how our own cognitions work and affect decision-making is hard. Observing our cognitive processes and assessing whether they are doing a good job is even harder. And yet, perhaps idealistically, I maintain that managers can improve their decision-making, at least to some degree, by developing an awareness of the role that their cognitions play in decision-making and practicing deliberate self-reflection and alertness while making complex decisions. It is especially important to monitor the rationales upon which interpretations and decisions are based, as these can often be unconscious and intuitive.

Second, I believe that the findings of this dissertation provide tacit guidelines for practicing managers to improve their decision-making abilities if practicing managers recognize that their capacity to make decisions concerning foreign markets is impaired. Put otherwise, as I explained in Article III, managers' decision-making abilities vary depending on their familiarity with the decision-making environment; in unfamiliar environments, the ability to recognize relevant factors and make decisions can be lower, or even paralyzed, due to individuals possessing an inadequate amount of context-specific experience from similar environments. This problem can be addressed by actively acquiring experience related to the unfamiliar decision-making environment. Therefore, in light of my findings, I argue that managers need to monitor their decision-making capacity during international expansion processes, and, if they perceive signals that their abilities to understand the situation and make decisions are weakened, they should avoid making major decisions and systematically acquire more relevant experience because decisions made without a solid understanding may lead to expensive failures. However, as shown in Article III, there is a possibility that the acquired experience will not achieve useful form and that the underlying knowledge structures that are used for decision-making will not be updated with the latest experience. In such situations, the transformation of experience into usable form requires trigger events; therefore, I claim that managers should actively reflect on how their recent experiences are linked to their international expansion efforts and should consider what can be learned from these experiences.



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## Original Publications



# ARTICLE I

**Cognitive foundations of firm internationalization: A systematic review and agenda for future research.**

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# Cognitive foundations of firm internationalization: A systematic review and agenda for future research

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## ABSTRACT

Managerial cognition has a fundamental role in the internationalization of firms. However, there exists no coherent understanding of how prior research has examined and captured the cognitive foundations of internationalization. This paper provides a systematic review of this body of literature. The review identifies three main streams of research that, overall, consists of nine more specific research areas. We show that especially the areas addressing (1) managerial learning, (2) characteristics of upper echelons, (3) intra-organizational perceptions, and (4) external actors' perceptions provide opportunities for the further advancement of internationalization literature. For harnessing these opportunities, we find that the microfoundational approach could support the empirical examination of the cognitive foundations and would notably contribute to the Uppsala model-based theorization of the firm internationalization process.

## 1. Introduction

There is a growing interest in international business literature on how individuals and their cognitions drive the firm's internationalization behavior (Aharoni, Tihanyi, & Connelly, 2011; Maitland & Sammartino, 2015). The decision-making processes related to the appropriate location, type, mode and timing of foreign market entry as well as the subsequent internationalization activities are argued to be dependent on managerial thinking (e.g., Clark, Li, & Shepherd, 2018). Similarly, related to the explanatory power of Uppsala model (Vahlne & Johanson, 2017), understanding of the cognitive microfoundations of individual decision-makers is seen critical in order to capture the details and dynamics of how the internationalization as a process develops from one stage to another (Coviello, Kano, & Liesch, 2017; Vahlne & Johanson, 2019). Cognitions are also found to have a central role as entrepreneurs manage the tension between their resources and environmental constraints and recognize and enact novel opportunities in international contexts (e.g., Jones & Casulli, 2014; Sarasvathy, Kumar, York, & Bhagavatula, 2014; Paul & Rosado-Serrano, 2019).

However, although there seems to be increasing agreement in international business literature that cognitions play a core role in internationalization attempts of firms, the existing research addressing cognitions is fragmented and underspecified. As Maitland and Sammartino (2015, p. 754) conclude: "While the IB field was an early adopter of the bounded rationality concept, the implications of

modeling boundedly rational individuals engaged in cognitive processes to determine entry forms and location choices are neither fully specified, nor understood." Indeed, since human cognition is a fundamental construct underlying decision-making and behavior, it is tempting to approach and apply it in various ways, and for different purposes. For example, we can find several quantitative studies that have examined the impacts of cognitive knowledge structures on internationalization decisions (e.g. Jiang, Ananthram, & Li, 2018; Mohr & Batsakis, 2018; Pisani, Muller, & Bogatan, 2018) and there also exists a growing number of qualitative and process-oriented studies that have focused on the development of knowledge structures during internationalization (e.g., Autio, George, & Alexy, 2011; Doornich, 2018; Jonsson & Foss, 2011). This diversity of approaches, methodologies, and topics reflects the vitality of the research field, but the situation can also be considered as unsupportive for the cumulative knowledge-building.

The purpose of this paper is to present a systematic review of cognitively oriented empirical internationalization research that delineates the focus areas of prior research and identifies whether some approaches or issues have remained underemphasized or even ignored and, consequently, evaluates implications for further research. Specifically, we identify and analyze 138 empirical studies that have examined the firm internationalization from the cognitive perspective. Our review reveals that the current body of literature can be divided into three main streams of research. Two of them address knowledge

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structures related to internationalization and the third one focuses on the cognitive processes. These streams of research consist of nine more specific areas of research. We show that especially the areas focusing on (1) managerial learning, (2) characteristics of upper echelons, (3) intra-organizational perceptions, and (4) external actors' perceptions provide several important and unaddressed questions for further research. We also suggest that additional scholarly attention on these areas, especially from the microfoundational perspective, would notably contribute to the Uppsala model-based (Vahlne & Johanson, 2017; Welch, Nummela, & Liesch, 2016) theorization of the firm internationalization process.

The rest of the paper progress in four main phases. We begin by drawing on the main conceptualizations on the research focusing on managerial cognitions and firm internationalization. In so doing, we set the boundaries between our key concepts and establish a conceptual framework that helps us to structure our review. Second, we outline our methodology. Thereafter, we present the findings of our systematic review and identify the core insights and challenges of the current body of literature. We conclude by presenting avenues for future research to overcome these challenges in a way that enhances more balanced and integrative research.

## 2. Definition and conceptual boundaries

### 2.1. Cognition and management

Cognition is a mental activity, a mental model, or a framework that an individual uses to see, interpret, understand and eventually construct a perceived reality (Walsh, 1995). Put more simply, all actions and decisions can be seen as the results of an individual's cognition. Consequently, cognition, as a core attribution of top managers, plays a key role in how scholars explain managerial behaviors and managers' influence on firm performance and other organizational outcomes (Finkelstein & Hambrick, 1996; Helfat & Peteraf, 2015; Levinthal, 2011; Maitland & Sammartino, 2015).

The roots of managerial cognition can be traced back to the research of the Carnegie School, more specifically, to Cyert and March (1963), March and Simon (1958), and Simon (1947), who developed the behavioral decision theory and the concept of bounded rationality, which become a core concept in managerial cognition literature. Bounded rationality builds on the premise that decision-makers aim towards rational considerations and decisions within their cognitive limits (Cyert & March, 1963; March & Simon, 1958). Building on these ideas organizational scholars began to pay increasing attention to the cognitive and interpretative role of managers when organizations are responding to environmental stimuli (e.g., Hambrick & Mason, 1984; Porac, Thomas, & Baden-Fuller, 1989; cf., Narayanan, Zane, & Kemmerer, 2011). Since the organizational environment is complex for managers to fully comprehend and too uncertain to be predictable, managers were found to rely on filtered and simplified cognitive representations of the environment (e.g., Simon, 1991). In particular, researchers acknowledged that these cognitive representations emerge through the knowledge structures that reside in the minds of the managers and influence their attention, encoding of experiences, memories, interpretations of experiences, and, consequently, the decisions they make (Walsh, 1995). While these knowledge structures can turn a complex environment into an understandable form, it was also found that such structures are also prone to errors (e.g., Kahneman & Tversky, 1979; Tversky & Kahneman, 1974) that can blind or even systematically mislead managers.

From the analytical perspective, the followers of behavioral decision theory addressed cognition by regarding the traits and characteristics of decision-makers as proxies for managerial cognition behind the strategic choices of organizations (e.g., Hambrick & Mason, 1984). However, Huff's (1990) study and Walsh's (1995) landmark review of managerial cognition gave new momentum to the field to examine

cognition more directly by focusing on, for example, cognitive representations and mental maps (see, e.g., Hodgkinson & Healey, 2008; Kaplan, 2011; Narayanan et al., 2011). The recent research has particularly considered how knowledge structures evolve through practice and experience (Bingham & Eisenhardt, 2011; Helfat & Peteraf, 2015; Maitland & Sammartino, 2015). For example, Maitland and Sammartino (2015) found that experienced managers are able to create a more detailed cognitive representation of the problem at hand. Thus, while the term cognition essentially includes the static knowledge structures, researchers have paid increasing attention on how the mental processes and activities apply, alter, and develop those knowledge structures (Helfat & Peteraf, 2015).

### 2.2. Internationalization and cognition

The firm internationalization has been rigorously studied over the past decades, and a considerable amount of literature and knowledge has been created (see, e.g., Knight & Liesch, 2016; Paul & Sánchez-Morcillo, 2019; Paul & Rosado-Serrano, 2019; Rialp, Merigó, Cancino, & Urbano, 2019). The topics internationalization research has addressed include, but are not limited to, entry modes (e.g., Brouthers & Hennart, 2007), entry timing (e.g., Zachary, Gianiodis, Payne, & Markman, 2015), emerging markets (e.g., Luo & Tung, 2018), and exporting (e.g., Kahiya, 2018; Paul, Parthasarathy, & Gupta, 2017). The prior accounts on firm internationalization also touch the related literatures on foreign direct investments (e.g., Buckley, Devinney, & Louviere, 2007; Paul & Singh, 2017), international marketing (e.g., Paul & Mas, 2019), and international entrepreneurship and new ventures (e.g., Alayo, Maseda, Iturralde, & Arzubiaga, 2019; Clercq, Sapienza, Yavuz, & Zhou, 2012; Hsieh et al., 2019; Prashantham & Floyd, 2012; Sadeghi, Nkongolo-Bakenda, Anderson, & Dana, 2019; Zahra, Ireland, & Hitt, 2000). Several of these studies build on the seminal contributions of the behavioral theory of the firm (e.g., Aharoni, 1966; Kogut & Zander, 1993).

Importantly, also the most cited and influential model in the research on firm internationalization process, the Uppsala model (Johanson & Vahlne, 1977), and the revised versions of it (e.g. Johanson & Vahlne, 2009; Vahlne & Johanson, 2017), explicitly builds on the heritage of the Carnegie School and its cognition-based modeling of firm activities (Welch et al., 2016). The model conceptualizes the decision-making process regarding international commitment, based on risk reduction that is achieved through experiential learning. The model is especially used to explain two important aspects of firm internationalization. The first aspect is the increasing commitment to international investments with respect to entry modes. That is, while firms start with entry modes that require lower commitments, they move to entry modes with higher commitment requirements as they learn and perceive less uncertainty. This can be seen as a path from exporting to joint-ventures and finally to foreign sales offices and manufacturing facilities. The second aspect address the increasing tolerance for psychic distance in terms of location choices. As the firms learn during their internationalization, they feel more comfortable to enter markets with a higher level of psychic distance. The model explains these phenomena by utilizing the knowledge and its development, the decision-making based on the developed knowledge, and perceptions of psychic distance and uncertainty of international markets as core constructs. The fundamental assumption is that when the firm's knowledge increases, the perceptions of psychic distance and uncertainty decrease. As a result, decisions regarding previously unacceptable entry modes or location choices start appearing as viable options. In the revised versions, the model is expanded to explain the firm internationalization in terms of networks and relationships, especially focusing on the role of outsidership in increasing uncertainty (Johanson & Vahlne, 2009), and the latest addition to the model is the inclusion of process ontology (Vahlne & Johanson, 2017). Cognitive lenses are also applied to research that closely relates to the process of



firm internationalization. For example, international entrepreneurship researchers have taken the concept of effectuation as a theoretical lens to inspect how expertise-based decision-making can be used to balance the tension between constraints and commitments and available resources in international ventures (e.g., Dutta & Thornhill, 2014; Kalinic, Sarasvathy, & Forza, 2014; Sarasvathy et al., 2014).

Despite these contributions, much of the internationalization research assumes a rather high level of managerial rationality (see, e.g., Maitland & Sammartino, 2015). In fact, while Aharoni (1966) recognized the core role of decision-makers in foreign investments, in most internationalization models, the individual manager remains without a notable role (cf., Coviello et al., 2017; Kogut, Walker, & Anand, 2002). The Uppsala model makes no exception in this regard as the core constructs are largely addressed at the firm level (Johanson & Vahlne, 1977). Yet, the role of individuals is acknowledged in the revised versions as Vahlne and Johanson (2017, p. 1089) state that “*when we record changes at the micro-level, they are to a large extent the aggregate outcomes of processes at the mille-micro level, i.e., the level of individuals or of subgroups within the organization*”. However, as noted by Coviello et al. (2017) and Vahlne and Johanson (2019) this has mainly remained as an acknowledgment and the associated research has not systematically examined the role of individual decision-makers.

Altogether, the firm internationalization is a highly uncertain process and because decision-makers cope differently with the uncertainty, the issues of cognitive limits, tolerance of risk and uncertainty, and experience are crucial factors determining the realized internationalization decisions (Aharoni et al., 2011; Bingham & Eisenhardt, 2011; Maitland & Sammartino, 2015). Indeed, researchers have found that these issues become particularly critical when decision-makers originate from different cultures and backgrounds, have different prior experiences, and varying levels of tolerance for risk (e.g., Demirbag, McGuinness, & Altay, 2010; Kiss, Williams, & Houghton, 2013; Liesch, Welch, & Buckley, 2011). Thus, earlier empirical research has examined and addressed several aspects related to the cognitive foundations of firm internationalization. Yet, there does not exist a coherent understanding of this body of literature. Therefore, a systematic review of literature appears necessary to further advance the cognitive internationalization research.

### 2.3. Conceptual framework

Clarification of conceptual boundaries is a core phase in the systematic literature review process (Denyer & Tranfield, 2009; Macpherson & Jones, 2010). To set up these boundaries to organize the literature, we build on earlier research on managerial cognition and propose a conceptual framework that is comprised of two commonly used categories for examining the managerial cognition (e.g., Helfat & Peteraf, 2015; Walsh, 1995). Namely, (1) the static knowledge structures that guide understanding and decision-making and (2) the cognitive processes that underlie these structures and are responsible for their creation and development (e.g., Gavetti, 2012; Helfat & Peteraf, 2015; Walsh, 1995). Next, this framework is discussed in detail and the

inclusion criteria for the categories are explicated.

The first category, the knowledge structure, is a static structure or representation of information within the mind of the individual (e.g., Helfat & Peteraf, 2015). It allows the individual to understand his/her environment (e.g., Narayanan et al., 2011; Walsh, 1995) and its main building material is experience (Maitland & Sammartino, 2015; Walsh, 1995). The knowledge structures can be used to create cognitive representations or perceptions of the external reality (Helfat & Peteraf, 2015). Earlier research refers knowledge structures also as mental maps (e.g., Maitland & Sammartino, 2015), mindsets (e.g., Nadkarni & Perez, 2007), cultural differences (e.g., Hakanson, Ambos, Schuster, & Leicht-Deobald, 2016), and managerial characteristics (e.g., Hutzschenreuter & Horstkotte, 2013). In our framework, we bundle the knowledge structure and the use of knowledge structure together, since knowledge structures themselves have rarely been the object of the study but rather the focus of the studies lies in the impact of the knowledge structure (e.g., Buckley, Munjal, Enderwick, & Forsans, 2016; Oura, Zilber, & Lopes, 2016).

For an empirical study to be considered to examine knowledge structures, our central inclusion criterion is that the study unveils the contents or outcomes of the knowledge structure and the consequent impact on firm internationalization. As regards to the contents of the knowledge structure, we refer to the underlying experience that constitutes the structure and other factors that influence the substance of the knowledge structure. With the outcomes, we refer to mental representations or perceptions of the environment – an understanding – that are created through the knowledge structures and the consequent judgments and choices.

As regards to the cognitive process category, we refer to processes that underlie the knowledge structures and are responsible for their development and change. For example, the cognitive processes can be related to acquiring of new knowledge or learning (e.g., Jonsson & Foss, 2011; Jiang, Holburn, & Beamish, 2014) and transferring existing knowledge to places where it is considered new (e.g., Asmussen, Foss, & Pedersen, 2013; Malik, 2013). Accordingly, the cognitive process category includes studies that empirically examine the development or change of the knowledge structures. That is, this category strives to capture the specific mechanisms – the cogs and wheels – of how the knowledge structure develops. We also prioritize cognitive process studies over knowledge structure studies, meaning that all studies that explicate both processes and knowledge structures are placed into the cognitive process category. The inclusion criteria of both categories are summarized in Table 1.

### 3. Methodology

To find all the relevant articles that have explored the internationalization of the firm from the cognitive perspective, we conducted a keyword search of Web of Science. We limited the search to “business” and “management” categories and to 14 leading IB and management journals during the period of 1992–2018. The chosen journals were International Business Review, Journal of World

**Table 1**  
Inclusion criteria of the conceptual framework.

Inclusion criteria for categorizing the sample studies	
Cognitive processes	Knowledge structures and their impact
If the focus is on development or change of a knowledge structure (e.g., knowledge creation, learning, knowledge transfer), the study is included in the process category.	If the focus is on the content or structure of the knowledge structure (e.g., experience, background, identity), the study is included in the knowledge structure category.
If cognitive processes are studied with knowledge structures or outcomes, the study is included in the process category.	If the focus is on the impact of a knowledge structure (e.g., decisions, judgment), the study is included in the knowledge structure category.
	If the focus is on the utilization of knowledge structure (e.g., perceptions, sense-making, mental maps), the study is included in the knowledge structure category.

Business, Journal of International Business Studies, Journal of Business Research, Management International Review, Journal of International Management, Journal of Management Studies, Strategic Management Journal, Research Policy, Journal of Management, Academy of Management Journal, Administrative Science Quarterly, Management Science, and Organization Science.

The search was conducted using a keyword search protocol that applied 46 cognitive terms based on cognitive keywords identified by Kaplan (2011) and Walsh (1995).<sup>1</sup> This resulted in 189 peer-reviewed articles, and of these, 136 were determined to be suitable for the sample, while 53 were discarded because they did not explicitly address internationalization, they were not built on cognitive assumptions. Since our intention is to capture the current state of empirical research, we excluded all conceptual papers from our sample. However, we have also tried to acknowledge central and influential conceptual papers as we outlined the conceptual boundaries of this paper. In addition, to address the concerns of missing central articles, we manually checked the list of references of the articles published in 2017 and 2018. While we came to the conclusion that the initial sample is highly legitimate, we identified a couple of relevant articles. Therefore, our final sample consisted of 138 articles (see Appendix A).

Fig. 1 shows that interest in explaining the cognitive foundations of the internationalization of firms has been rapidly increasing during the past decade. This trend follows the development in the field of management and organization studies in general (Kaplan, 2011). Fig. 2 illustrates how the number of published internationalization studies that adopt the cognitive perspective notably vary among journals. The majority of the ongoing discussions are being debated in the IB journals. That is, there are three IB journals among the four largest publication outlets, namely International Business Review, Journal of World Business, and Journal of International Business Studies.

In the analysis phase, we adopted a commonly used approach to systematic review where the sample articles are carefully read in full and assessed based on thematic codes (e.g., de Mol, Khapova, & Elfring, 2015; Schmitt, Raisch, & Volberda, 2018). The used thematic codes were: (1) Publication Year, (2) Title, (3) Authors, (4) Journal, (5) Area of contribution, (6) Key findings, (7) Methods, (8) Analytical level. Since our primary focus is on the cognitive approach, we also include the codes – (9) Cognitive focus and (10) Cognitive theme – for assessing how the studies address cognition and what area of managerial and organizational cognition they inspect (see Appendix B1–B3).

Specifically, under the ninth code, the sample studies were divided into two categories of our conceptual framework: (1) the studies that focus on cognitive processes and (2) the studies that focus on knowledge structures and their impact. Under the tenth code, the studies were given “cognitive labels” based on the cognitive topics and areas of research that are stated in the division statement of the Academy of Management’s Managerial and Organizational Cognition division.<sup>2</sup>

<sup>1</sup> The used search protocol was as follows: (attention OR mindset OR schema OR “cognitive schema” OR “cognitive processes” OR “causal maps” OR cognition OR “cognitive approach” OR “cognitive bias” OR “cognitive complexity” OR “cognitive construction” OR “cognitive diversity” OR “cognitive factions” OR “cognitive frames” OR “cognitive groups” OR “cognitive mapping” OR “cognitive maps” OR “cognitive structures” OR frames OR “frames of reference” OR framing OR “heuristics and biases” OR “information exchange” OR “information processing” OR “information sharing” OR “issue selling” OR judgment OR “knowledge base” OR “knowledge structures” OR “knowledge transfer” OR “managerial cognition” OR “measuring knowledge” OR “mental maps” OR “mental models” OR “organizational knowledge” OR overconfidence OR perception OR “problem representation” OR sensemaking OR “shared cognition” OR “shared understanding” OR signaling OR “similarity judgments” OR “social cognition” OR “social learning” OR “strategic cognition”) AND (internationalization OR “international expansion”)

<sup>2</sup> The cognitive topics used for coding were social construction, culture and cognition, the nature and role of mental models and representations, judgment

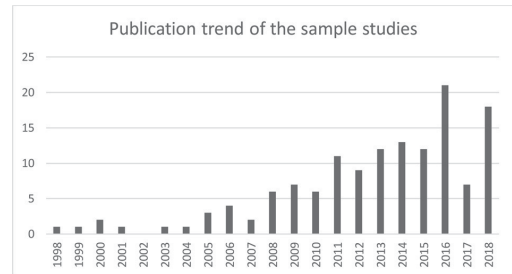


Fig. 1. Publication trend of the sample studies.



Fig. 2. Publication outlets.

Code 10 also made it possible to exclude all non-cognitive studies systematically and reliably. After the studies were coded and categorized, we conducted a qualitative content analysis within the two categories to explore what are the main commonalities and contradictions in these categories. The analysis was conducted by first organizing the studies based on the cognitive themes (code 10) and then we further analyzed the content of the studies based on the area of contribution (code 5) and key findings (code 6). The results of the content analysis were cross-checked by the authors.

#### 4. Empirical cognitive research on firm internationalization

Using our conceptual framework, we classified studies in those that focus on (1) the cognitive processes and those that focus (2) the knowledge structures and their impact. As Fig. 3 illustrates, we found nine areas of research that capture the conceptual issues and topic areas examined in the firm internationalization research with an explicit cognitive orientation. The research areas focused on organizational learning, knowledge transfer, and managerial learning fulfill the inclusion criteria of the cognitive process category. Because they share the focus on aspects of learning and knowledge development, we classified them as the stream of learning and knowledge development research. The other identified areas of research fulfill the inclusion

(footnote continued)

and decision making, attribution processes, individual differences, non-conscious forms of cognition (e.g., intuition), cognitive institutionalism, emotion, ideology, identity/identification, image, reputation, sense-making/meaning making, symbols and artifacts, categorization, knowledge creation and management, individual learning, organizational learning and memory, and communities of practice.

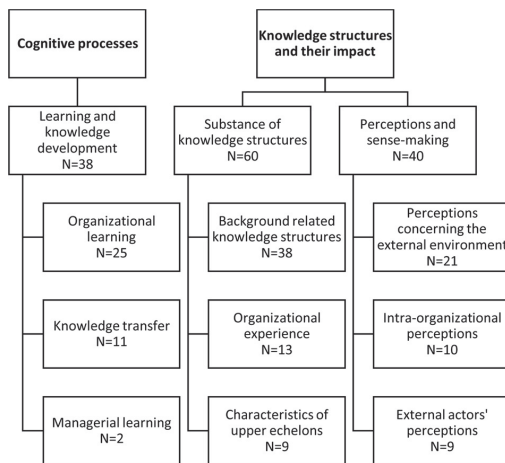


Fig. 3. The main streams and areas of research.

criteria of the knowledge structures and their impact category. Specifically, since the research on background related knowledge structures, organizational experience, and characteristics of upper echelons primarily focus on experience and characteristics underlying the knowledge structures and their impact on internationalization, they were classified as the research stream considering the substance of knowledge structures. The remaining three research areas—perceptions concerning the external environment, intra-organizational perceptions, and external actors' perceptions—relate to the utilization of knowledge structures and were classified as the stream of perceptions and sense-making research. Next, we analyze each of these empirical areas of research in terms of their contribution to identify where the existing work has been done and which topics would benefit from further development.

#### 4.1. Cognitive processes

##### 4.1.1. Learning and knowledge development

Much of the research inspecting cognitive processes adopt the *organizational learning* perspective. These studies have examined the specific ways of how firms learn during internationalization (e.g., Jonsson & Foss, 2011; Jiang et al., 2014), the sources of this learning (e.g., Manolopoulos, Papanastassiou, & Pearce, 2005; Yu, Gilbert, & Oviatt, 2011) and the aspects that influence organizations' learning during internationalization (e.g., Autio et al., 2011; Lam, 2003; Tan & Meyer, 2011). Specifically, there exists evidence that firms learn from their own internationalization experiences (e.g., Jonsson & Foss, 2011), from the experiences and actions of their rival companies (e.g., Belderbos, Van Olfen, & Zou, 2011; Jiang et al., 2014), and from the experience of their allies and networks (e.g., Park & Harris, 2014). Organizational learning can also happen through acquiring personnel. For example, Hernandez (2014) argued that organizations learn from immigrant workers and that this learning can have an influence on a firm's target market choices. Thus, organizational learning during internationalization is a complex process and, as Park and Harris (2014) suggest, organizations are likely to learn by utilizing multiple ways of learning and multiple sources of knowledge. Altogether, while there is a body of research examining how organizations learn, the issue of what is learned has received only marginal attention. Bingham and

Eisenhardt (2011) provide an exception to this by investigating what organizations learn from the experience and arguing that firms learn heuristics from the internationalization experience.

The existing research has also given a recognizable amount of attention to the aspects that influence or mediate the learning from the internationalization process. For example, Autio et al. (2011) suggested that situational uncertainty of the environment impacts the organizational learning and capability development. Piperopoulos, Wu, and Wang (2018) pointed out that geographical differences play a major role in organizational learning during internationalization by showing that firms from emerging countries benefit from internationalizing into more developed countries. Lam (2003) pointed out that the cultural factors are also at play in the learning process by showing that US firms have an advantage in learning compared to Japanese firms due to the more liberal and flexible culture. In addition to the cultural and geographical differences, the magnitude of internationalization and how the organization is managed has been shown to influence the learning (e.g., Ibeh & Kasem, 2014).

Another broadly studied conceptual area that involves examinations of cognitive processes during internationalization is the *knowledge transfer*. This perspective is used to study the knowledge flows in the context of internationalization, especially focusing on how cognitive differences, caused by the international environment, influences these flows (e.g., Asmussen et al., 2013; Malik, 2013). Existing work has shown that the knowledge transfer within an organization is influenced by the nature of the transferred knowledge. That is, externally acquired knowledge is found to be less transferable within an organization than internally generated knowledge (Asmussen et al., 2013). However, when the knowledge is transferred between companies, the characteristics of the partner have been found to impact the knowledge transfer, especially the distances between the parties in terms of religion, education and social norms (e.g., Li, Roberts, Yan, & Tan, 2014; Malik, 2013). While there are multiple factors hindering the knowledge transfer, prior research has also inspected how the knowledge transfer can be facilitated. For example, Rui, Zhang, and Shipman (2016) suggested that the transfer process can be helped by tailoring the knowledge for the recipient whereas Prashantham and McNaughton (2006) suggested that the barriers for knowledge transfer can be lowered by a neutral third party.

The third area of research inspecting cognitive processes that we identified in our review is *managerial learning*. It adopts the individual level perspective on the matter. However, we observed that the existing research considering cognitive processes at the managerial level is scarce and the research that exists is rather recent. These studies have mainly explored the mechanisms of managerial learning (e.g., Doornich, 2018; Schweizer, 2012). For example, Doornich (2018) pointed out that while managers may perceive their environment similarly, they react to it differently due to differences in their learning ability. That is, some managers learn at a higher level, adapt, and become aligned with their institutional environment while others learn at a lower level, make only minor adjustments when necessary, and remain at conflict with their environment.

Altogether, regarding the cognitive processes related to firm internationalization, we find that the research on how organizations learn and transfer the learned knowledge during internationalization has created a notable body of knowledge. However, considering the scope and importance of research on managerial learning in the other fields of management research (e.g., Casey, 2005; Lant, Milliken, & Batra, 1992; Tempest & Starkey, 2004), we anticipate that further research focusing on learning efforts of individual managers could add to our understanding of the cognitive processes related to firm internationalization.

## 4.2. Knowledge structures and their impact

### 4.2.1. Substance of knowledge structures

The literature review revealed that the earlier research addressing knowledge structures and their impact has paid notable attention to the *background related knowledge structures*. Specifically, the studies have focused on how the internationalization is influenced by (1) cultural, ethnic and national differences and the consequent cognitive distance (e.g., Mohr & Batsakis, 2018; Williams & Gregoire, 2015) as well as (2) identity and existing mindsets (e.g., Augusto-Felicio, Meidute, & Kyvik, 2016; Jiang et al., 2018). The former approach, also called as psychic distance, is the most utilized perspective in inspecting knowledge structures. The central theme is to investigate how internationalization related decisions such as location choices (e.g., Magnani, Zucchella, & Floriani, 2018) and entry mode choices (e.g., Williams & Gregoire, 2015) are influenced by cultural, geographical, political and economic factors, among others (e.g., Hakanson & Ambos, 2010). Existing psychic distance research has also studied how firms can cope with psychic distance (e.g., Child, Rodrigues, & Frynas, 2009). The latter approach has mainly inspected how different identity or mindset related knowledge structures such as family ownership (e.g., Boellis, Mariotti, Minichilli, & Piscitello, 2016; Singla, Veliyath, & George, 2014) or global or domestic mindsets (e.g., Jiang et al., 2018; Nadkarni, Herrmann, & Perez, 2011) influence internationalization.

Another relatively commonly used way of addressing knowledge structures and their impact is to inspect *organizational experience* and how it influences the internationalization. The experience is often divided into international (e.g., Bingham, 2009; Hatonen, 2009; Papadopoulos & Martin Martin, 2010) and domestic experience (e.g., Hong & Lee, 2015) or existing in-house (e.g., Bello, Radulovich, Javalgi, Scherer, & Taylor, 2016; Contractor, Yang, & Gaur, 2016) and newly, experientially, acquired experience (e.g., Buckley et al., 2016). For example, in terms of international experience, Bingham (2009) studied how prior foreign market entry experience influence improvisation regarding opportunity selection and execution, and the consequent performance of internationalizing firm. Hong and Lee (2015), in turn, provide an example of domestic experience by pointing out that the cultural uncertainty can be reduced with domestic experience in some cases.

The third area of research that we found focusing on the substance of knowledge structures is the *characteristics of upper echelons*. This area of research has inspected how the characteristics of CEOs, top management teams, and in some cases boards of directors, influence firm internationalization. In terms of CEOs, their characteristics such as experience, tenure, and education has been shown to influence the performance of the internationalizing firm (Daily, Certo, & Dalton, 2000; Hsu, Chen, & Cheng, 2013) and to the ability to break free from the path-dependency related to internationalization process (Dutta, Malhotra, & Zhu, 2016). Top management team characteristics have also been found to influence location choices (e.g., Hutzschenreuter & Horstkotte, 2013) and to the degree of internationalization (e.g., De Priijcker, Manigart, Wright, & De Maeseneire, 2012; Li, 2018). Board members' experiences and their influence on internationalization have received very scant attention. Yet, Ang, Benischke, and Hooi (2018) recently pointed out that entry mode experience of boards from unrelated industries translates into entry mode choices also in other industries. Altogether, there exists less research on upper echelons compared to the two previous thematic areas of research.

### 4.2.2. Perceptions and sense-making

Our review shows that the *perceptions concerning the external*

*environment* and, especially, the international environment have been in a major role in the examination of the internationalization related knowledge structures. Specifically, the existing research has inspected the organization's perceptions of the environment in terms of risk, knowledge, uncertainty, and opportunities. The perception of risk has been found to influence the internationalization decisions, especially the location and entry modes (e.g., Kraus, Ambos, Eggers, & Cesinger, 2015) as well as the degree of internationalization (e.g., Kiss et al., 2013).

While the knowledge of the external environment itself is a central attribute that influences internationalization decisions, subjective perceptions of this knowledge have been found to influence the internationalization as well (e.g., Lindstrand, Eriksson, & Sharma, 2009; Petersen, Pedersen, & Lyles, 2008). For example, Petersen et al. (2008) pointed out that an organization's perception of their knowledge regarding the foreign markets follows inverted U-shape during the internationalization process. That is, firms can be overconfident at the beginning of the process because they do not understand what they do not know. In the later phases of the process, they start to understand what they do not know and perceive their lack of knowledge. In the final stage of the process, they understand what they know and what there is to know about the foreign markets.

Researchers have also examined the perceived uncertainty, which has been shown to influence entry mode decision (e.g., Demirbag et al., 2010) and subsequent entries (e.g., Fisch, 2008). Furthermore, perceptions of the environment are studied in terms of recognizing opportunities. For example, Muzychenko and Liesch (2015) suggested that perceptions of internationalization opportunities are linked to the motivation of the organization.

The existing research has also inspected *intra-organizational perceptions* during internationalization. However, the empirical research around this topic has been relatively scarce. The existing accounts have mainly inspected how perceptions and understanding of intra-organizational tensions (e.g., Asakawa, 2001), capabilities (e.g., Cahen, Lahiri, & Borini, 2016), and performance (e.g., Zhang, Zhong, & Makino, 2015) influence the internationalization of a firm.

The third area of research addressing perceptions and sense-making is related to *external actors' perceptions* of the internationalizing firm. These views of external actors have been studied by inspecting the impact of an organization's reputation and image on internationalization, and how reputation and image have been categorized by external parties. For example, firms are shown to enjoy reputation benefits when their country-of-origin is perceived positively in the target markets (e.g., Borda et al., 2017). On the other hand, internationalization can impact the firm's reputation (e.g., Thams, Alvarado-Vargas, & Newbury, 2016). The organization's image has been found to influence the internationalization as well. However, the quality and strength of this influence of image heavily depend on the characteristics of the target location. For example, Chaney and Gamble (2008) found that customers from larger and more open-minded cities reacted to the foreign firm's image better than customers from smaller and less advanced cities. Existing research has also focused on how the organization's image can be transferred to target markets (e.g., McGoldrick, 1998; Yuan, Liu, Luo, & Yen, 2016). The categorial associations regarding the firm is a topic that is taken up by only one study in the sample by focusing on the public's negative categorization of a firm and the ways of managing the negative associations (Vergne, 2012). Altogether, we find that the current understanding of how external actors make sense and perceive the organization in the context of internationalization is relatively limited.

**Table 2**  
Main research streams and their challenges in the cognitive internationalization literature.

Main research streams	Key observations	Key challenges	Core insights of past studies	Potential future research questions
<b>Learning and knowledge development</b>	Learning and knowledge development are inspected mainly from an organizational perspective while managerial perspective is neglected.	How managers and their individual differences influence their moderating role in organizational learning and knowledge transfer in the context of internationalization?	Organizations learn from internationalization through multiple ways (e.g., Park & Harris, 2014), namely experiential learning (e.g., Jonsson & Foss, 2011), vicarious learning (e.g., Belderbos et al., 2011; Jiang et al., 2014), or learning from the networks, partners (e.g., Park & Harris, 2014), or employees (e.g., Hernandez, 2014).	How the incremental nature of internationalization is influenced by the learning and knowledge transfer among managers? Is managerial learning guided by the organization or is the organization emerging from managerial learning? How organizational learning is influenced by the heterogeneous perceptions and preferences of managers on what should be learned, and what is the role of managerial learning in this process? What is the relationship between organizational experience from different sources and what is the level of overlap among them? How background related knowledge structures moderate the influence of identity-based knowledge structures, and vice versa? How heterogeneity in board members' knowledge structures impact internationalization? How the conflicting perceptions and preferences of individual managers influence the use of different knowledge structures? Does strong perceptions of the firm's own reputation or image moderate the perceived uncertainty in the target market? How external actors categorize internationalizing firms and how does it influence internationalization? How perceptions of the firm's own category influence internationalization? How organizations and managers perceive and make sense of what should be learned?
<b>Substance of knowledge structures</b>	Substance of knowledge structures and their impact are mainly studied by inspecting the organization's knowledge structures whereas the top management's knowledge structures have received less attention.	How the heterogeneity in management's knowledge structures impact the organizational level internationalization decision-making processes?	Organizational decision-making is influenced by background related knowledge structures that emerge from culture, ethnicity, nationality (e.g., Williams & Gregoire, 2015; Mohr & Batsakis, 2018) as well as knowledge structures related to identity and specific mindsets (e.g., Jiang et al., 2018; Augusto-Felicio et al., 2016). Experience from certain sources (e.g., international or domestic experience) can be seen to have distinct influence the internationalization related decision-making (e.g., Hatonen, 2009; Hong & Lee, 2015). Perceptions concerning the external environment influence the location and entry mode choices (e.g., Kraus et al., 2015) as well as the degree of internationalization (e.g., Kiss et al., 2013). Perceptions of intra-organizational affairs such as internal tensions (e.g., Asakawa, 2001), capabilities (e.g., Cahen et al., 2016), and performance (e.g., Zhang et al., 2015) influence the internationalization process. Perceptions of external actors regarding the firm influence the performance in foreign markets (e.g., Chaney & Gamble, 2008) and the reputation benefits/losses (e.g., Borda et al., 2017).	
<b>Perceptions and sense-making</b>	Perceptions and sense-making are mainly inspected in terms of how the organization perceives its external environment but research regarding how the firm perceives its intra-organizational affairs and how external actors perceive the firm's image, reputation or category is scarce.	How internationalization is influenced by the perceptions of external actors with respect to image, reputation or categorization of the firm? How internationalization is influenced by intra-organizational perceptions (e.g., tensions, capabilities)?		



## 5. Discussion and agenda for future research

### 5.1. Implications for theory development

In our review, we identified and analyzed 138 empirical studies that have examined the firm internationalization from the cognitive perspective. By systematically organizing and analyzing this large but seemingly fragmented body of literature, we have offered a solid basis for the further cumulative knowledge-building. As Table 2 summarizes, we identified three main streams of research including their key theoretical insights and challenges. Building on these findings, we now turn to discuss their implications for future research and theory development in this field.

Organizing the existing research allowed us to identify four areas of cognitive research that have received relatively little attention considering the size of the sample and the importance of these areas in the management and organization literature in general (e.g., Antonacopoulou, 2006; Carpenter, Geletkanycz, & Sanders, 2004; Crawford, 2005; Sutcliffe, 1994). These areas are (1) managerial learning, (2) characteristics of upper echelons, (3) intra-organizational perceptions, and (4) external actors' perceptions regarding the organization. Next, we discuss the implications for and importance of further research on these areas to increase understanding of the internationalization process of the firm. For positioning our considerations with respect to the broader understanding of the internationalization process of the firm, we adopt the revised Uppsala model (Vahlne & Johanson, 2017) as our central frame of reference. That is, we seek to establish the significance of the identified theoretical shortcomings by showing that they play a major role in the Uppsala model-based understanding of the internationalization process of a firm. We see this as an appropriate way to proceed due to the Uppsala model's foundational position in the current theoretical understanding of the internationalization process of a firm and the ongoing efforts to further develop it (e.g., Vahlne & Johanson, 2019; Welch et al., 2016).

First, there is a need for further research on how learning at the level of individual managers influences the organizational learning and knowledge transfer during internationalization. While this has been conceptually addressed (e.g., Prashantham & Floyd, 2012), empirical research remains scarce. The more extensive focus on the managerial learning could also provide one approach to elaborate how the "processes at the micro level, i.e., the level of individuals" (Vahlne & Johanson, 2017, p. 1089) aggregate and influence on organizational development and experimental learning suggested by the Uppsala model. Indeed, further attention on the managerial level learning could provide evidence of those "micro level details" called by Coviello et al. (2017, p. 1156) that are needed in explaining how the internationalizing firm transitions from one stage to another.

Furthermore, the Uppsala model-based incremental progression of internationalization relies on the increasing experience. However, this experience is partly stored in the individuals' heads, which implies that at the organizational level this incrementality of the progress is dependent on the stability of the personnel and their ability to learn from each other (Forsgren, 2002). Consequently, by further inspecting the learning and knowledge transfer among managers, we could better capture the bases where this incremental nature of internationalization emerges from. The further understanding of managerial learning could also address whether the organization dictates what the managers are able to learn. Consequently, this could elucidate the important question of whether the individual manager is a mere mediator of organizational and environmental influence (c.f., Antonacopoulou, 2006) or a core resource leading and forming the internationalization process (c.f., Daily et al., 2000). Finally, further examinations on managerial learning could provide novel insights of the role of the competing

perceptions and preferences regarding what needs to be learned and how during the internationalization (c.f., Forsgren, 2002).

Second, while knowledge structures and their impact have been broadly studied within the field of cognitive internationalization research, our review shows that the past research has mainly focused on how the knowledge structures and characteristics of the organization influence the firm internationalization leaving the managerial actors, upper echelons, with less attention. Consequently, this has led to a somewhat limited understanding of how the differences in the individual characteristics of managers influence the firm internationalization. We see this as a noteworthy issue because the organizational knowledge structures are not always reflecting the knowledge structures of individual managers, but rather there can exist a tension between them. The study of Cui, Li, and Li (2013) elaborate this tension by showing that organizational experience and managerial experience together weaken each other's positive influence on internationalization, while both have been found to have positive influence independently. Therefore, inspecting the organizational knowledge structures alone will only reveal one side of the story. Furthermore, the upper echelons perspective could be useful in elaborating how the managerial characteristics and prior experience influence the way organizations act based on their organizational knowledge structures, which is playing a central part in the Uppsala model-based understanding of the firm internationalization.

We also encourage scholars to pay further attention to organizational perceptions and sense-making both as regards to internal affairs as well as to the perceptions of external actors. Both of these perspectives could also be used to deepen the Uppsala model-based understanding of firm internationalization. This can be done by inspecting, for example, how the perceptions of external actors regarding image, reputation, or category of the firm moderates the learning, networking, and trust-building, which are considered as the key elements of Uppsala model (e.g., Vahlne & Johanson, 2017). Since the Uppsala model does not explicitly address these aspects of perceptions, but rather focus on how the firm perceives the foreign markets, we see that this could be a fruitful domain to advance the Uppsala model-based theorizing.

Another perspective that could provide novel insights is to examine how the varying perceptions of the firm's own capabilities and resources, and their development, influence the internationalization process, especially the increase of international commitment. Indeed, understanding and acting on changing capabilities and resources such as raw materials, technology, organizational culture, and relationships are seen as major features of the revised Uppsala model (Vahlne & Johanson, 2017). Yet, the moderating role of intra-organizational perceptions has not attracted empirical inspection. Clarke and Liesch (2017), however, have conceptually addressed the topic by elaborating the role of risk perceptions on relationship commitment decisions in the Uppsala model providing a compelling domain for further empirical inspections.

### 5.2. Methodological implications for future research

While the individual managers and their critical role in the firm internationalization have been emphasized before (e.g., Coviello et al., 2017), the prior research has not explicated more specific topic areas and methodological guidelines for microfoundational research. Indeed, we consider that one of our main contributions is the explication of these research opportunities that could be harnessed by adopting the microfoundational perspective.

We suggest that the microfoundational approach (e.g., Felin, Foss, & Ployhart, 2015; Foss, 2016) could provide an interesting perspective for addressing the firm internationalization as a multilevel phenomenon (e.g., Aharoni et al., 2011; Coviello et al., 2017; Maitland &

Sammartino, 2015). Specifically, the microfoundational perspective acknowledges the multilevel nature of internationalization process and views that while internationalization emerges from the decision-making of individual managers, it is also influenced by the analytical levels above the organization (e.g., industry, society) and thus acts as a mediator of different analytical levels. Accordingly, by explicitly taking this approach could help us to examine, for example, how the learned knowledge can be transferred within the organization (e.g., Asmussen et al., 2013; Fang, Wade, Delius, & Beamish, 2013; Malik, 2013) and how macro-level constructs such as culture, ethnicity, and nationality (e.g., Mohr & Batsakis, 2018; Williams & Gregoire, 2015) resonate with the internationalization related decision-making at the level of individual managers.

As the microfoundational argument emphasizes the importance of the identification of causal relationships and underlying “cogs and wheels” of a phenomenon (e.g., Foss & Pedersen, 2016), we also consider that it can be linked with the causal mechanism approach on explanation. This approach, which is interested in explaining how the entities interact and produce the phenomenon of interest at the higher level (e.g., Hedström & Ylikoski, 2010; Pajunen, 2008), could provide an interesting explanatory basis for studying internationalization process in a way that captures its multilevel nature. Specifically, we see that the causal mechanism approach can be used to elaborate the details of the role of individual managers in the development and use of organizational knowledge. As Foss and Pedersen (2016) stated, there can be multiple micro level explanations for organization level phenomena that cannot be known without inspecting micro level mechanisms that currently remain unknown. We also consider that the rather recent typology for theorizing from case studies – put forward by Welch, Piekkari, Plakoyiannaki, and Paavilainen-Mäntymäki (2011) –

provides one approach for achieving these causal explanations while capturing the unique contextual characteristics of internationalization. Indeed, the methodological opportunities provided by the qualitative case research are apt when we seek to address the complexity and richness of firm internationalization (e.g., Ji, Plakoyiannaki, Dimitratos, & Chen, 2019). Altogether, while we highlight the importance of the micro level mechanisms and explanations, we acknowledge that the firm is, and should be, the central unit of analysis in internationalization research. Similarly, while we have emphasized the value of qualitative process studies, we see that future research on cognitive foundations of internationalization would also benefit from the use of other research designs such as experiments (e.g., Buckley et al., 2007).<sup>3</sup>

#### Declaration of Competing Interest

None.

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#### Appendix A. Sample articles

1

- 1 Ang, S. H., Benischke, M. H., & Hooi, A. W. (2018). Frequency of international expansion through high control market expansion modes and interlocked directorships. *Journal of World Business*, 53(4), 493-503.
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<sup>3</sup> We acknowledge the reviewers for making these important points regarding the level of analysis and different research designs.

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## Appendix B. Coding tables

See Tables B1–B3.



**Table B2**  
Studies focusing on the substance of knowledge structures.

Studies focusing on the substance of knowledge structures				Area of contribution		Cognitive research area	
Articles (Chronologically)	Method	Analytical level					
Daily et al., 2000 Nguyen et al., 2006	Quantitative Qualitative	Individual & Organization Organization		Impact of CEO's tenure, experience, succession events, and firm internationalization on firm performance Information internationalization and its influence on internationalization (foreign sales intensity), and the mediating role of international orientation Impact of online internationalization on the psychic distance of internationalizing firms		Characteristics of upper echelons Background related knowledge structures Background related knowledge structures	
Yamin & Sinkovics, 2006	Qualitative	Organization		Domestic mindset and its role in the early phase of internationalization		Background related knowledge structures Background related knowledge structures	
Nadkarni et al., 2011	Quantitative	Organization & Higher-level		Experience from prior entries and its influence on improvisation regarding opportunity recognition and execution and the consequent performance of the firm.		Organizational experience Organizational experience	
Bingham, 2009	Qualitative	Organization		Psychic distance's impact on SME exporters and ways of coping with it		Background related knowledge structures Organizational experience	
Child et al., 2009	Mixed	Organization		Influence of experience, knowledge transfer, R&D, global networks, and returnee entrepreneur on export orientation and export performance		Background related knowledge structures Organizational experience	
Flatotchev et al., 2009	Quantitative	Individual & Organization		Offshore outsourcing decisions. Especially, the location choices and the impact on international expansion		Organizational experience Background related knowledge structures	
Hatonen, 2009	Qualitative	Organization		A critical assessment of psychic distance and revised definition in the case of exporting		Background related knowledge structures Background related knowledge structures	
Prime et al., 2009	Qualitative	Individual & Organization		Influence of international production shifts on customers willingness to buy "hybrid products" and the moderating role of consumer animosity		Background related knowledge structures Background related knowledge structures	
Funk et al., 2010	Quantitative	Organization & Higher-level		Perception of psychic distance in different countries		Background related knowledge structures Organizational experience	
Hakanson et al., 2010	Quantitative	Individual/Country		Relationship between internationalization (international experience, international commitment, and DOI) and export performance		Organizational experience Background related knowledge structures	
Papadopoulos & Martin, 2010	Quantitative	Organization		Impact of ethnic ties on location choices and performance		Background related knowledge structures Background related knowledge structures	
Jean et al., 2011	Quantitative	Organization		Impact of domestic mindset (i.e., prior domestic experiences of TMTD) on early international commitment decisions		Background related knowledge structures Background related knowledge structures	
Nadkarni & Perez, 2007	Quantitative	Organization		Influence of communication on the choice between greenfield and acquisition entry modes		Background related knowledge structures Characteristics of upper echelons	
Slangen, 2011	Quantitative	Organization		Influence of prior experience, inherited experience of TMT, and external knowledge on likelihood and number of cross-border investments		Background related knowledge structures Organizational experience	
De Priecker et al., 2012	Quantitative	Individual & Organization		SME internationalization and speed of internationalization. Especially, the speed of traditional SME internationalization		Background related knowledge structures Background related knowledge structures	
Kalnic & Forza, 2012	Qualitative	Organization		Resources and capabilities and their interaction and influence on firm performance		Background related knowledge structures Characteristics of upper echelons	
Lahiri et al., 2012	Quantitative	Organization		Impact of institutional distance on internationalizing to less developed markets and transferability of capabilities		Background related knowledge structures Organizational experience	
Van den Waeyenberg & Hens, 2012	Qualitative	Organization & Higher-level		Psychic distance's impact on FDI of Chinese firms		Background related knowledge structures Background related knowledge structures	
Blomkvist & Drogendijk, 2013	Quantitative	Organization		Personal and organizational experience's impact on FDI decisions		Background related knowledge structures Characteristics of upper echelons	
Cui et al., 2013	Quantitative	Individual & Organization		CEO characteristics' influence on the performance of internationalizing firm		Characteristics of upper echelons Characteristics of upper echelons	
Hsu et al., 2013	Quantitative	Individual & Organization		Influence of TMT experience on international expansion to countries with high levels of cultural distance		Background related knowledge structures Background related knowledge structures	
Hurtzschneuter & Horstkotte, 2013	Qualitative	Organization		Performance of offshoring IT service providers and the influence of partnership quality, talent management, and global mindset		Background related knowledge structures Background related knowledge structures	
Raman et al., 2013	Qualitative	Organization		Drives and antecedents of MNE HQ disaggregation		Background related knowledge structures Background related knowledge structures	
Schotter et al., 2017	Quantitative	Organization		Subsidiary mortality in different cultural environments and the influence of experience and learning ability in a foreign culture		Background related knowledge structures Background related knowledge structures	
Zeng et al., 2013	Quantitative	Organization & Higher-level		Psychic distance's impact on innovation ability		Background related knowledge structures Background related knowledge structures	
Azar & Drogendijk, 2014	Quantitative	Organization		Born global internationalization in the long term, and the role of the firm's internal/external environments and entrepreneurs' characteristics		Characteristics of upper echelons Characteristics of upper echelons	
Hagen & Zucchella, 2014	Qualitative	Individual & Organization					

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Table B2 (continued)

Studies focusing on the substance of knowledge structures				Area of contribution		Cognitive research area	
Articles (Chronologically)	Method	Analytical level					
Puthusserry et al., 2014	Mixed	Individual & Organization & Higher-level		Perception of psychic distance in British-Indian partnership of SMEs and its impact on the business as well as ways of coping with the psychic distance		Background related knowledge structures	
Richardson & Mallon, 2005	Qualitative	Individual & Organization		Drivers of self-made choice to expatriate and perceptions of the impact of expatriate experience on career		Background related knowledge structures	
Sachdev & Bello, 2014	Quantitative	Organization		Impact of asset specificity and environment diversity on control mechanisms (monitoring and information sharing) and the moderating effect of economic knowledge and psychic distance		Background related knowledge structures	
Singla et al., 2014	Quantitative	Organization		Impact of family ownership and family management on firm internationalization		Background related knowledge structures	
Heidenreich et al., 2015	Qualitative	Individual & Organization		Role of the interplay of political strategies and entrepreneurial overconfidence in coping with uncertainty in terms of FDI decision making to a developing country		Background related knowledge structures	
Hong & Nguyen, 2009	Qualitative	Organization		Knowledge transfer and knowledge embeddedness in MNEs.		Organizational experience	
Kim et al., 2015	Quantitative	Organization		Impact of DOI and collaborative climate on international human capital capitalization		Organizational experience	
Maitland & Sammartino, 2015	Qualitative	Individual & Organization		Impact of experience on managerial cognition, especially on mental modes and their role in the internationalization		Background related knowledge structures	
Morescalchi et al., 2015	Quantitative	Organization & Higher-level		Development of cross-border knowledge networks and the constraining impact of physical distance and country boundaries		Background related knowledge structures	
Williams & Gregoire, 2015	Quantitative	Individual & Organization		Re-conceptualization of distance and its influence on internationalization		Background related knowledge structures	
Augusto-Felicio et al., 2016	Quantitative	Individual & Organization		Influence of individual and corporate global mindsets on SME internationalization		Background related knowledge structures	
Bello et al., 2016	Quantitative	Organization		Innovation capabilities of emerging market professional service firms		Organizational experience	
Boellis et al., 2016	Quantitative	Organization		Influence of family ownership on FME mode choices		Background related knowledge structures	
Buckley et al., 2016	Quantitative	Organization		Experiential and non-experiential knowledge in cross-border acquisitions in the case of Indian MNEs		Organizational experience	
Contractor et al., 2016	Quantitative	Organization		Influence of intangible assets to subsidiary profitability and the moderating role of distance, ownership strategy, and subsidiary experience		Organizational experience	
Dutta et al., 2016	Quantitative	Individual & Organization		Impact of CEO and slack resources on internationalization decisions over time		Characteristics of upper echelons	
Gupta et al., 2016	Mixed	Individual & Organization		The relationship between marketing innovations and the competitiveness of brand and resellers		Background related knowledge structures	
Hakanson et al., 2016	Quantitative	Organization & Higher-level		Antecedents of psychic distance		Background related knowledge structures	
Herrera-Echeverri et al., 2016	Quantitative	Individual & Organization		Influence of family ownership and board composition on export behavior in the case of Colombian family firms		Background related knowledge structures	
Oura et al., 2016	Quantitative	Organization		Innovation capacity and international experience and their impact on emerging market SME export performance		Organizational experience	
Duran et al., 2017	Quantitative	Organization		Family ownership's influence on internationalization and the mediating role of the political environment and ideologies		Background related knowledge structures	
Marano et al., 2017	Quantitative	Organization & Higher-level		The relationship between EMNEs' CSR reporting and institutional void in emerging markets		Background related knowledge structures	
Ang et al., 2018	Quantitative	Individual & Organization		The frequency of high-control entry modes and director interlocking		Characteristics of upper echelons	
Hendricks et al., 2018	Quantitative	Organization		Impact of the firm's domestic footprint on international expansion and the moderating role of cultural distance within the firm's country portfolio		Background related knowledge structures	
Jiang et al., 2014	Quantitative	Individual & Organization		Influence of global mindset to entry mode choices and the moderating role of decision-making styles and experience		Background related knowledge structures	
Li et al., 2015	Quantitative	Organization		Influence of inter- and intra-organizational learning on FME decisions		Characteristics of upper echelons	
Magnani et al., 2018	Qualitative	Individual & Organization		Influence of strategic objectives on FME location choices and the role of objective and psychic distances		Background related knowledge structures	
Mohr & Batsakis, 2018	Quantitative	Organization		The relationship between a firm's resources and international expansion to multiple countries simultaneously and the moderating effect of cultural distance		Background related knowledge structures	
Pisani et al., 2018	Quantitative	Individual & Organization & Higher-level		TMT internationalization's impact on a firm's internationalization and the role of institutional diversity of the firm's home-region and the firm's global focus		Background related knowledge structures	
Stoian et al., 2018	Qualitative	Individual & Organization		Knowledge types needed for SME internationalization		Organizational experience	

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Table B2 (continued)

Studies focusing on the substance of knowledge structures				
Articles (Chronologically)	Method	Analytical level	Area of contribution	Cognitive research area
Thams et al., 2018	Quantitative	Individual & Organization & Higher-level	Antecedents of multinationality in boards of directors	Background related knowledge structures
Villar et al., 2018	Quantitative	Organization	Antecedents of springboard subsidiary for inter-regional expansion (one of the subsidiaries start to focus on overcoming the liability of foreignness and becoming an intermediary in the MNE)	Organizational experience



**Table B3**  
Studies focusing on perceptions and sense-making.

Studies focusing on perceptions and sense-making				
Articles (Chronologically)	Method	Analytical level	Area of contribution	Cognitive research area
McGoldrick, 1998 Kuemmerle, 1999	Mixed Qualitative	Organization Organization	The international image of retail firms and exporting the retailer image Motives, location characteristics, inter-temporal characteristics, and entry modes in R&D FDI	External actors' perceptions Perceptions concerning the external environment
Asakawa, 2001 Ellis, 2005	Qualitative Qualitative	Organization Organization	Organizational tension in managing international R&D Manufacturer's perception of export intermediary's performance and its impact on the relationship, especially on the termination of the exporting arrangement	Intra-organizational perceptions Perceptions concerning the external environment
Richardson, 2014	Qualitative	Organization & Higher-level	Cultural distance within Muslim countries and its influence on a firm's internationalization	Perceptions concerning the external environment
Gleason & Wiggens, 2007 Chaney & Gamble, 2008 Fisch, 2008	Quantitative Quantitative Quantitative	Organization Organization & Higher-level Organization	Entry mode choices of born globals and the reaction of the market to the performance Retail store ownership's influence on perceptions of Chinese customers Influence of perception of uncertainty on sequential FDI and the role of learning	External actors' perceptions External actors' perceptions Perceptions concerning the external environment
Jack et al., 2008	Qualitative	Organization	Influence of inseparable embedded services, especially the separability of the services from the physical goods, on the firm's FME mode choices	Intra-organizational perceptions
Petersen et al., 2008	Quantitative	Organization	Perceived knowledge gaps in internationalization	Perceptions concerning the external environment
Lindstrand et al., 2009	Quantitative	Organization	Perceived usefulness of knowledge from foreign client networks	Perceptions concerning the external environment
Demirbag et al., 2010	Quantitative	Organization & Higher-level	Influence of managerial perception of uncertainty on entry mode choices	Perceptions concerning the external environment
Toledo et al., 2010	Mixed	Individual & Organization & Higher-level	Influence of government incentives on growth, internationalization, and performance of Oaxacan SMEs	Perceptions concerning the external environment
Hashai, 2011	Quantitative	Organization	International expansion of born globals in terms of geographic scope and extent of foreign operations. Especially, whether the two happen at the same time or in sequence	Perceptions concerning the external environment
Lamb et al., 2011 Lauring & Schmeier, 2012 Swoboda et al., 2012	Qualitative Qualitative Quantitative	Individual & Organization Organization Organization	Small firm internationalization led by owner-managers Language management and its influence on tolerance and diversity climate Adaptation of global account management of manufacturers to the internationalization of retailers	Intra-organizational perceptions External actors' perceptions Perceptions concerning the external environment
Vergne, 2012 Kiss et al., 2013	Mixed Quantitative	Organization & Higher-level Organization	Negative public evaluations of firms, categorization and stigmas and their influence on internationalization Perception of risk in a relation to "objective" standards and its influence on new venture's post-entry DOI, and the mediating effect of motivation	External actors' perceptions Perceptions concerning the external environment
Schmid & Dauth, 2014 Gubbi et al., 2015 Kraus et al., 2015	Quantitative Quantitative Quantitative	Organization Organization & Higher-level Individual & Organization	The international diversity of TMT members and stock market reaction to the appointments Influence of business group affiliation on international search behavior during institutional change Influence of risk perceptions on internationalization decisions regarding entry mode and location preferences and the role of geographic, cultural, economic, and political distance	External actors' perceptions Intra-organizational perceptions Perceptions concerning the external environment
Muzychenko & Liesch, 2015	Qualitative	Individual & Organization	International opportunity recognition in internationalization and the ability to overcome the liability of foreignness and liability of outsidership	Perceptions concerning the external environment
Wood et al., 2015 Zhang et al., 2015 Cohen et al., 2016 Jiang et al., 2018 Khavul & Deeds, 2016	Quantitative Quantitative Quantitative Quantitative Quantitative	Individual & Organization Organization Organization Organization Organization	Motivation in SME exporting, especially the role of motivation in initiating the exporting Influence of customer involvement on internationalization performance in the case of service firms Barriers to internationalization in the case of new technology-based firms in emerging markets The relationship between spatial structures of foreign subsidiaries and location choices Selection of partners in the case of VCs' co-investment syndications in emerging markets	Intra-organizational perceptions Intra-organizational perceptions Intra-organizational perceptions Perceptions concerning the external environment
Liu et al., 2016	Qualitative	Organization	Standardization-localization decisions regarding brand communication in Chinese markets in the case of fashion retailers	Perceptions concerning the external environment
Murtinu & Scalera, 2016	Quantitative	Organization	Internationalization choices of sovereign wealth funds, especially the use of investment vehicles	Perceptions concerning the external environment
Thams et al., 2016 Torres et al., 2016	Quantitative Quantitative	Organization & Higher-level Organization	Geographical diversification and its impact on the home country reputation Firms awareness and use of public incentives for internationalization, especially the link between awareness and use	External actors' perceptions Perceptions concerning the external environment
Yuan et al., 2016	Quantitative	Organization	Impact of availability of low-cost capital (market timing) on internationalization decisions	Perceptions concerning the external environment

(Continued on next page)



Table B3 (continued)

Studies focusing on perceptions and sense-making			
Articles (Chronologically)	Method	Analytical level	Area of contribution
Yuan et al., 2016	Qualitative	Organization	Reciprocal transfer of brand image and identity to satellite university from the parent university
Borda et al., 2017	Quantitative	Organization & Higher-level	Influence of international activities and host country context on the reputation of MNEs
Francioni et al., 2017	Qualitative	Individual & Organization	Influence of network relationships on internationalization of small "late starter" Italian wine producers
Schotter & Abdelzaher, 2013	Qualitative	Individual & Organization	Boundary spanning and the impact of Muslim diasporas on a firm's internationalization. The focus is especially on cultural/religious groups rather than countries
Hewitt-Dundas & Roper, 2018	Quantitative	Organization	Innovation in higher education. Especially the program introduction and withdrawal and the impact on internationalization
Shen & Puig, 2018	Quantitative	Organization	The relationship between location choices and entry mode choices
White et al., 2018	Quantitative	Organization & Higher-level	Impact of perception of regulator vulnerability to political pressure on the intensification of political ties and the moderating effect of institutional distance
			External actors' perceptions
			External actors' perceptions
			Intra-organizational perceptions
			Perceptions concerning the external environment
			Intra-organizational perceptions
			Perceptions concerning the external environment
			Perceptions concerning the external environment

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# ARTICLE

## II

### Studying cognition through decision-makers' characteristics: Insights from international business research.

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## STUDYING COGNITION THROUGH DECISION-MAKERS' CHARACTERISTICS: INSIGHTS FROM INTERNATIONAL BUSINESS RESEARCH

### ABSTRACT

In the managerial and organizational cognition literature, cognition is often studied by considering the observable characteristics of decision-makers. However, these studies have largely neglected cognitive differences stemming from the cultural, national, ethnical, and geographical (CNEG) characteristics of decision-makers—ones that are commonly studied in the field of international business research. Despite the contributions of international business research within the domain, the advancements have not found their way to the broader literature on managerial and organizational cognition. In order to remedy this deficiency, this chapter seeks to introduce the work conducted within the international business field on the cognitive differences and the resultant cognitive distance stemming from decision-makers' CNEG characteristics. This work has generated original insights on (1) cognitive distances, (2) cognitive structures, (3) the legacy of the home country, and (4) tolerance to cognitive differences. As a result, the chapter strengthens the foundations for cumulative knowledge building by providing an integrative understanding of cognitive research based on the characteristics of managers.

**Keywords:** managerial and organizational cognition; upper echelons theory; cognitive differences; cognitive distance; international business

### INTRODUCTION

In managerial and organizational cognition (MOC) research, the cognition of an individual is commonly conceptualized as a mental activity or a mental structure that is used to make sense of the surrounding world; this understanding then serves as a base for decision-making (e.g., Simon, 1947; Walsh, 1995; Finkelstein & Hambrick, 1996; Kaplan, 2011; Levinthal, 2011). These cognitive structures are constructed from prior experience under the influence of the environments in which the learning occurs; thus, individuals have very distinct cognitive constructs that they use to see, perceive, and understand their respective environments (e.g., Maitland & Sammartino, 2015). Despite this variance, a certain systematism has been noted in the emergence of cognitive structures. The characteristics of decision-makers have been shown to greatly influence how cognitive structures emerge and what kinds of behaviors can be expected (Hambrick & Mason, 1984; Hambrick, 2007).

Therefore, characteristics leading to diverse cognitive structures have a foundational role in explaining managerial behavior. For instance, Maitland and Sammartino (2015) explored the influence of prior experience on the interpretations of the surrounding environment through managers' work histories. Eisenhardt and Bourgeois (1988) inspected managers' strategic decision-making processes through demographic characteristics, such as age. Carpenter and Fredrickson (2001), in turn, looked at the relationship between international experience, education, and tenure and a firm's global strategic posture.

However, the varying cognitive settings emerging from differing cultural, national, ethnical, and geographical (CNEG) characteristics and their interactions are studied relatively little in general MOC research. The foundational review studies providing an overview of MOC-oriented research in the general management literature do not recognize these cognitive differences and the consequent cognitive distances as studied themes (see, e.g., Walsh, 1995; Hodgkinson & Healey, 2008; Kaplan, 2011; Narayanan, Zane & Kemmerer, 2011). This means that, while the literature acknowledges that background-related differences in cognitions influence the behavior of organizations and individuals, a rather narrow set of characteristics is utilized to inspect this influence. However, in the field of international business (IB) research, scholars have investigated the cognitive settings, their differences, and the consequent cognitive distances through CNEG characteristics (see, e.g., Niittymies & Pajunen, 2020). In particular, scholars inspecting the cognitive foundations of internationalization have conducted unique research on CNEG background-related cognitive differences. Yet, these contributions largely remain concealed within the boundaries of the IB research stream (see, e.g., Buckley, 2002). This is regrettable, as CNEG-related cognitive differences not only influence managerial and organizational activities during IB activities but are also present in the everyday life of numerous organizations in the globalizing world. This partial understanding of the matter generates challenges for understanding multinational organizations, in particular, and the cumulative knowledge building on the topic, in general.

In this chapter, I argue that it is time to bring the advancements of IB research regarding CNEG background-related cognitive differences to the broader discourse on MOC (e.g., Walsh, 1995; Hodgkinson & Healey, 2008; Kaplan, 2011; Narayanan et al., 2011). To materialize this endeavor, I will describe the advancements achieved by IB scholars on the cognitive differences stemming from



CNEG characteristics.<sup>1</sup> These advancements relate to four topics: (1) cognitive distances, (2) cognitive structures, (3) the legacy of the home country, and (4) tolerance to the cognitive differences. As a result, the chapter advances MOC research by providing an integrative understanding of cognitive research based on the characteristics of managers, thus fortifying the foundations for cumulative knowledge building in the future.

Next, I will outline the theoretical understanding of managerial cognition and its relationship with the characteristics of decision-makers. Thereafter, I proceed to explain the insights of the four topics and finally conclude by discussing the insights and integrating them into the broader discourse on MOC.

## **THEORETICAL BACKGROUND**

### **Cognition and mental activity**

Cognition has a foundational role in explaining managerial behavior and its impact on organizational activity, because all decisions are considered to stem from cognitive activity (e.g., Finkelstein & Hambrick, 1996; Helfat & Peteraf, 2015; Levinthal, 2011). Cognition is commonly conceptualized as a mental activity or a mental model or structure that is used to make sense of the surrounding world (Walsh, 1995). This includes processes of knowing, remembering, information processing, and reasoning (Helfat & Peteraf, 2015). The term “cognition” encompasses two meanings: (1) knowledge structures and (2) cognitive processes.

First, knowledge structures are static compilations of information that are used to make sense of the environment. The environment is too complex for managers to understand and too uncertain to be considered predictable; thus, managers rely on simplified cognitive representations of the environment, which emerge from the knowledge structures residing in their minds (e.g., Simon, 1991; Gavetti & Levinthal, 2000; Gavetti, Greve, & Levinthal, 2012). While such knowledge structures can turn the complex environment into an understandable form, they are also prone to errors that can systematically mislead managers (e.g., Twersky & Kahneman, 1974; Kahneman & Twersky, 1979).

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<sup>1</sup> In explaining these advancements, I draw from a systematic review that focuses on the cognitive differences stemming from CNEG characteristics. The articles for this review were located with a keyword search from the Web of Science database. The search protocol contained 46 cognitive keywords adopted from the works of Walsh (1995) and Kaplan (2011). After limiting the search to “business” and “management” categories and 14 IB and management journals representing scholarly rigor and high quality, 189 articles dealing with cognition and internationalization were found. From these, 40 articles that explicitly focused on cognitive differences related to CNEG characteristics were identified. The selected articles were then read in full, and a qualitative content analysis was conducted to assess how the sample articles address cognitive differences.

Knowledge structures evolve through practice and experience (e.g., Bingham & Eisenhardt, 2011; Helfat & Peteraf, 2015; Maitland & Sammartino, 2015). For example, Maitland and Sammartino (2015) pointed out that more experienced managers possessed better abilities to create a cognitive representation of the problem at hand. Consequently, much of the cognitive literature focuses on the link between cognition and experience, or in other words, what comprises cognition (e.g., Maitland & Sammartino, 2015).

Second, cognitive processes are used to generate, modify, and utilize knowledge structures; thus, the former are highly intertwined with the latter, albeit their relationship remains rather vague and subjective (e.g., Helfat & Peteraf, 2015). These processes are responsible for encoding new experiences into knowledge structures and for identifying the characteristics of the encountered situations and searching and retrieving a suitable knowledge structure from memory, which can then be used to make sense of a situation (Maitland & Sammartino, 2015). However, according to Helfat and Peteraf (2015), cognition, especially cognitive processes, is an underdeveloped area that remains only modestly understood.

### **Cognition and the characteristics of decision-makers**

The roots of managerial cognition can be traced to the behavioral scholars of the “Carnegie school,” especially to Simon (1947), March and Simon (1958), and Cyert and March (1963), who developed behavioral decision theory and the concept of bounded rationality. This later became the core concept in managerial cognition literature. The concept of bounded rationality assumes that managers are unable to comprehend their environment to the full extent; thus, they tend to make decisions based on a partial understanding of a situation (March & Simon, 1958). In addition, the decision is shaped by the decision-makers' tendency to optimize their decision-making process instead of the decision per se. That is, managers do not seek to make optimal decisions, but rather they settle for decisions that satisfy the predefined criteria, thus making the process more efficient (Simon, 1947). Altogether, the individual managers make decisions based on a complex system of cognitive activity, including interpreting, understanding, considering the goals and options, predicting possible outcomes, and finally making the decision (e.g., Simon, 1947; March & Simon, 1958).

During the 1980s, organizational scholars started to adopt the Carnegie school's behavioral decision theory and to pay increasing attention to the cognitive aspect instead of the rational and analytical approaches (e.g., Hambrick & Mason, 1984; Porac, Thomas, & Baden-Fuller, 1989; cf. Narayan et al., 2011). Scholars realized that organizational activity emerges through the choices of managers; thus, they started to investigate the managers and their activities instead of the structural features of organizations (e.g., Simon, 1947; Porac et al., 1989). In these early days of MOC scholarship,

researchers observed that the cognition of an individual can be inspected through the traits and characteristics of decision-makers, given that they act as proxies for the underlying cognition driving the strategic choices in organizations (e.g., Hambrick & Mason, 1984). This approach is known as upper echelons theory (see Hambrick & Mason, 1984).

Upper echelons theory is based on the premise that decision-makers' experiences, personalities, and values influence their construction of the subjective interpretation of a given situation and, consequently, their decisions. While the proxies provided by the observable characteristics are, admittedly, incomplete and imprecise—mostly unable to explicate the real psychological processes driving the behavior of the decision-maker—they are still found to provide relatively reliable proxies that can be used to predict behavior (Hambrick, 2007). In other words, external observable characteristics are not the same as psychological characteristics, but they are connected. Observable characteristics can provide insights into how the cognitive structure of an individual is built, which in turn, can explain the actions and choices. Individuals with similar experiences and backgrounds tend to make similar choices (see, e.g., Hambrick, 2007). In many cases, they are also the best options because of the difficulty of accessing the actual psychometric data of the decision-makers of major companies.

In the 1990s, Huff's (1990) *Mapping Strategic Thought* and Walsh's (1995) landmark review of managerial cognition provided more direct ways of addressing cognition through cognitive structures and mental maps instead of personal characteristics (cf. Hodgkinson and Healey, 2008; Narayanan et al., 2011; Kaplan, 2011). Nevertheless, the use of the observable characteristics of decision-makers (i.e., upper echelons theory) in studying cognition has remained a highly influential approach.

### **INSIGHTS FROM INTERNATIONAL BUSINESS RESEARCH**

In the field of IB, scholars have found that CNEG-related characteristics can be used to predict behavior, because they systematically influence what kind of experiences an individual faces and what kind of personality will emerge (see, e.g., Williams & Gregoire, 2015; Mohr & Batsakis, 2018). Consequently, prior IB research has explored how the cognitive differences stemming from CNEG characteristics influence organizational activity. On the contrary, general MOC research has focused on different observable background factors instead of utilizing CNEG characteristics as proxies. In particular, general MOC research has mostly focused on how the organization's responses vary based on executives' education, experience, tenure (see Hambrick, 2007) and on the differences in capabilities, organizational identity, individual experience, education, and knowledge (e.g., Kaplan, 2011; Narayanan et al., 2011).

This inclination to utilize different observable characteristics to study cognition has led to a situation wherein IB research investigates aspects of cognition that are different from those inspected in general MOC research. These topics, which are original to upper echelons-oriented IB research, include (1) cognitive distances, (2) cognitive structures, (3) the legacy of the home country, and (4) tolerance to cognitive differences.

### **Cognitive distances**

Cognitive distance is considered in IB research as one of the key factors influencing business activities (e.g., Williams & Gregoire, 2015). It is an umbrella term for distances stemming from different factors. The most commonly studied distances are cultural distance (e.g., Mohr & Batsakis, 2018), geographic distance (e.g., Boeh & Beamish, 2012), institutional distance (e.g., Van den Waeyenberg & Hens, 2012), and psychic distance (e.g., Håkanson et al., 2016). This stream of research has inspected cognitive differences and the consequent cognitive distances stemming from CNEG characteristics and how these influence the international operations of firms (e.g., Johanson & Vahlne, 1977; Brouthers, 2002). CNEG characteristics have a notable and systematic influence on the development of cognitive structures, thus creating cognitive distance between individuals with different CNEG characteristics (e.g., Håkanson et al., 2016; Mohr & Batsakis, 2018). This cognitive distance has been argued to influence learning processes (e.g., Zeng, Shenkar, Lee, & Song, 2013), innovation ability (Azar & Drogendijk, 2014), and market selection (Magnani, Zucchella, & Floriani, 2018; Mohr & Batsakis, 2018), to name a few.

The core assumption of cognitive distance is that it can cause problems in cross-border interaction, because differences in cognitive structures lead to varying interpretations of the surrounding world, which can then hamper mutual understanding. In relation to this, Zeng et al. (2013) found that cognitive distance may lead firms to participate in erroneous learning in the new foreign culture if they do not have prior experience from different cultures that could reduce the perceived distance.

Instead of being objective, cognitive distance is always subjective and perceived. For example, Williams and Gregoire (2015) showed that the influence of distance is dependent on the question at hand and on the factors augmenting or reducing the distance. They found that location and timing choices are influenced by perceived commonalities, while mode choices are influenced by perceived differences. Therefore, the cognitive distance stemming from the CNEG-related characteristics can be reduced or augmented. The magnitude of the distance is often linked to familiarity, proximity, and similarity between the countries and their CNEG orientations (see, e.g., Kogut & Singh, 1988). The most dominant model of firm internationalization, the Uppsala model, incorporates this idea, as it

assumes that firms can reduce the perceived uncertainty through experiential learning within the unfamiliar market (see Johanson & Vahlne, 1977).

Altogether, cognitive distance influences many organizational decisions. Moreover, it is relevant for all major organizations beyond the field of IB research, as most of them operate in multiple, dissimilar areas and experience cognitive distances within and outside the organization.

### **Cognitive structures**

While plenty of MOC studies have inspected cognitive structures (see, e.g., Walsh, 1995), these works have focused on knowledge structures stemming from characteristics, such as education, experience, and industry (e.g., Carpenter & Fredrickson, 2001). In addition, IB scholars have studied knowledge structures that can be linked to CNEG characteristics. IB research on cognitive structures often inspects the influence of a particular area, along with its CNEG-related characteristics, on the development of cognitive structures and the consequent influence of these structures on organizational activity. Therefore, IB research has inspected cognitive structures that are not universal but are rather linked to particular environments and their specific characteristics. This research has produced unique insights into specific forms of cognitive structures, including (1) domestic and (2) global mindsets, which are, according to Nadkarni, Hermann, and Perez (2011, p. 510), a “lens through which top managers view the environment and make decisions.”

While mindset is a prerequisite for interpreting the world in a specific way (e.g., Jiang, Ananthram, & Li, 2018), it is not a synonym for a cognitive structure; rather, it is a particular form of cognitive structure that is distinct from cognitive decision-making styles and prior experience. For instance, Jiang et al. (2018, p. 413) demonstrated this difference by investigating “how their [managers’] cognitive decision-making style and managerial experience interact with their global mindset and thereby affect their decisions.”

“Domestic mindset” refers to a cognitive structure that has developed from domestic experience only. It has been found to misguide decision-makers’ sense-making processes, thus leading to a poor or biased understanding of their situation in international environments (Nadkarni et al., 2011). However, domestic mindset can also turn out to be beneficial in foreign environments, especially if the underlying domestic knowledge is suitable (Nadkarni & Perez, 2007). This is because the underlying assumption is that cognitive structures are environment-specific; that is, the structure developed in one place might be able to make sense of similar environments but not dissimilar (e.g., Niittymies, 2020). Without international experience, domestic knowledge is used as a reference point in decision-making (Jeannet, 1999). The ability of a mindset to facilitate sense-making is related to

the breadth of such a mindset, and in turn, this is related to the complexity, diversity, and expertise in various domains and depth of the mindset, which describe the details, specificity, and expertise within one domain (Zahra, Ireland, & Hitt, 2000; Nadkarni et al., 2011). In particular, broad mindsets are less dependent on existing knowledge and support the creation of new knowledge and creative behaviors, whereas depth-oriented mindsets are found to lead to more path-dependent behaviors (Vermeulen & Barkema, 2001; Nadkarni et al., 2011). In addition to influencing interpretations of the environment, a domestic mindset can make some environmental stimuli more observable than others, thus influencing which environmental factors the decision-makers notice, react to, and ignore (Nadkarni et al., 2011). When decision-makers encounter different cultures and countries, they experientially learn from these as a result of which their mindset evolves into a global mindset.

“Global mindset” refers to a cognitive structure built on international experience and incorporates abilities that enable the decision-maker to operate in different CNEG contexts. This kind of mindset acknowledges the paradoxical and competing forces of the international environment and adapts to these by rethinking boundaries and adjusting behaviors (Jiang et al., 2018). This means that decision-makers must learn to interact with different CNEG realities, which require adaptation capabilities, cultural awareness, flexibility, tolerance, and variation in the developed mindset (e.g., Augusto-Felicio, Meidute, & Kyvik, 2016; Jiang et al., 2018). Levy et al. (2007, p. 244) suggested that a global mindset is “a highly complex cognitive structure characterized by an openness to and articulation of multiple cultural and strategic realities on both global and local levels, and the cognitive ability to mediate and integrate across this multiplicity.”

While global mindset has been found to influence SME internationalization (Augusto-Felicio et al., 2016), entry-mode choices (Jiang et al., 2018), and offshoring performance (Raman, Chadee, Roxas, & Michailova, 2013), studies on global mindset present conflicting and diverse conclusions. For instance, prior studies suggest that global mindset and international strategies have no direct relationship (Bouquet, 2005), a global mindset can drive internationalization strategies (Levy, 2005), and global mindsets are developed by the internationalization process (e.g., Nummela, Saarenketo, & Puumalainen, 2004). Altogether, while IB research has generated important insights into global mindsets, the holistic picture remains hazy.

### **The legacy of the home country**

One very particular form of studying cognition through observable characteristics—and the special traits of IB research—is inspecting the influence of an organization’s home country on organizational activity. This builds on the assumption that there are areas that differ in their attributes (e.g., CNEG

characteristics), which are much less utilized in general MOC research. The studies investigating the legacy of the home country have mainly inspected this influence from two angles.

First, the legacy of the home country is studied in terms of how an organization from a particular country is seen in other places. This culminates in reputational factors and ethnic ties that the country or its population might have. Studies inspecting reputation have pointed out that the home country of a firm influences how it is perceived in other countries. Such an influence can be positive or negative. For instance, firms from Latin America experience reputation benefits in other Latin American countries compared to domestic firms or those coming from outside the region (Borda et al., 2017). Meanwhile, in China, domestic firms are favored in economically less advanced areas, whereas foreign firms are preferred in economically advanced areas (Chaney & Gamble, 2008). Ethnic ties also influence decision-making in firms, especially if they are shared between different areas. For example, they can guide location choices relating to international expansion, but performance benefits are unlikely to be achieved through ethnic ties (Jean, Tan, & Sinkovics, 2011).

Second, the home country's legacy shapes the organization itself; that is, the home country's conditions and institutions can influence the organization's behavior and capabilities. For instance, existing studies have shown that the institutional diversity of an organization's home country supports the local firm's international expansion abilities (Pisani, Muller, & Bogatan, 2018) and that the institutional void increased the use of CSR reporting in the case of firms from emerging markets (Marano, Tashman, & Kostova, 2017). In addition, the home country is found to influence identity and the behaviors emerging from this identity. This home country-related identity of an organization influences the work preferences within the firm (Schotter & Abdelzaher, 2013). Furthermore, strong sales success in the home country can shape identity in a way that leads to decreased tolerance of uncertainty (Hendriks, Slangen, & Heugens, 2018).

### **Tolerance of cognitive differences**

The final category describes insights on tolerating and coping with the cognitive differences and the cognitive distance that emerge from diversity in CNEG characteristics. While this body of literature remains small, it provides valuable and much-needed knowledge on what kinds of factors influence tolerance of these cognitive differences. The existing research has shown, for instance, that cognitive differences stemming from institutional factors are much more difficult to cope with than differences stemming from cultural factors (Puthusserry, Child, & Rodrigues, 2014) and that the tolerance to these cognitive differences in firms is influenced by the prevailing national attitudinal environment towards immigrants and foreigners (e.g., Thams, Kelley, & Von Glinow, 2018).

This stream of research has also shown that we do not need to accept the harmful effects of cognitive differences stemming from CNEG characteristics, because the tolerance for cognitive differences can be influenced by deliberate actions. For instance, using English as the management language has a significant positive influence on the tolerability and diversity climate of an organization (e.g., Luring & Selmer, 2012). While we have merely scratched the surface of this topic, further research on the topic is important, because it can provide the means to help practitioners improve organizational performance in a globalized world.

## **DISCUSSION AND CONCLUSIONS**

While the differences in decision-makers' cognition and their consequent impacts are critical for understanding how an organization operates within its environment (e.g., Porac et al., 1989; Kaplan, 2011; Maitland & Sammartino, 2015), general MOC research has overlooked some fundamental aspects of these cognitive differences. Indeed, the cognitive differences of the decision-makers have been studied only from selected perspectives, while overlooking others. In particular, a closer inspection of recent reviews on MOC research within the general management literature (e.g., Hodgkinson & Healey, 2008; Kaplan, 2011; Narayanan et al., 2011) and internationalization literature (see, e.g., Williams & Gregoire, 2015; Niittymies & Pajunen, 2020) reveals that while IB research has examined cognition through CNEG-related characteristics, these insights have not yet found their way to general MOC research. This fragmentation is an obstacle to understanding how organizations reach decisions in multinational environments. It also hinders cumulative knowledge building on the topic. The purpose of this chapter is to remedy this deficiency.

First, the primary contribution of this chapter is to advance theory by providing a more coherent picture of what we know about the cognitive differences of decision-makers stemming from CNEG characteristics. As the general MOC literature does not address cognitive differences and the consequent cognitive distances based on CNEG characteristics (see, e.g., Walsh, 1995; Hodgkinson & Healey, 2008; Kaplan, 2011; Narayanan et al., 2011), the insights presented regarding the (1) cognitive distances, (2) cognitive structures, (3) the legacy of the home country, and (4) tolerance to cognitive differences are novel additions to the literature. These CNEG-related insights of cognitive differences enable traditional MOC research to better understand organizational heterogeneousness by introducing approaches about which we already have a great deal of scholarly knowledge (see, e.g., Williams & Gregoire, 2015), which has not yet found its way to the literature (see, e.g., Walsh, 1995; Hodgkinson & Healey, 2008; Kaplan, 2011). In other words, given that global organizations are melting pots of different CNEG-related orientations, understanding them entails understanding



this plurality as much as possible. This integration also supports cumulative knowledge building by providing a new platform for future research.

Second, IB research has generated insights into knowledge structures and mindsets that, when integrated into the general discourse on MOC research, can advance our understanding of managerial cognition underlying organizational behavior. The conclusions of the current study contribute to the work on the role of knowledge structures in organizations (see, e.g., Walsh, 1995), mainly by showing that some rather fixed knowledge structures emerge from CNEG-related characteristics (see, e.g., Nadkarni et al., 2011; Augusto-Felicio et al., 2016). While these are central topics in IB research, they are novel insights to the MOC literature, which has traditionally focused on other aspects of cognition (see, e.g., Walsh, 1995; Kaplan, 2011). For instance, Kaplan (2011) identifies domestic mindset as one of the topics studied under the umbrella of MOC research. Yet, the domestic mindset is not the only mindset that has been studied. In fact, IB research has produced substantial knowledge on other orientations and mindsets, such as international orientation and global mindset (e.g., Nguyen, Barrett, & Fletcher, 2006; Jiang et al., 2018). Integrating these insights across multiple and varied knowledge structures, orientations, and mindsets contributes to the enrichment of the MOC literature.

Finally, this chapter advances the MOC literature by identifying the need for future research on CNEG-related cognitive differences. The most obvious gap in our knowledge is the lack of intersections between MOC-oriented research in the research fields of IB and management. This type of work provides interesting opportunities and, therefore, should be emphasized in future research. Furthermore, even though this is arguably an everyday challenge in global companies, tolerance to CNEG-related cognitive differences has not been extensively studied—even in IB. Indeed, while we know—to a certain extent—how the CNEG-related cognitive differences and the consequent cognitive distance influence organizational activity, the general understanding of coping mechanisms that are used to counter the ill-natured consequences of these differences and subsequent distances remains relatively modest. In relation to this, explicating how companies can cope with cognitive differences provides intriguing opportunities for future research.

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# ARTICLE

## III

**Heuristic decision-making in firm internationalization: The influence of context-specific experience.**

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# Heuristic decision-making in firm internationalization: The influence of context-specific experience

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## ABSTRACT

It is widely understood that the internationalization decisions made by companies are complex and constrained by uncertainty. While prior research has shown that heuristics can facilitate decision-making in complex and uncertain environments, the role of heuristic decision-making in internationalization decisions has not been studied in depth. In order to remedy this lacuna, the article uses a qualitative and inductive approach to track the development of heuristic decision-making processes in two Finnish SMEs as they conduct their first moves towards internationalization, explicating the influence of context-specific experience on developments. The emergent theoretical model indicates that while heuristic decision-making has a positive impact on internationalization strategy development, managers are unable to harness this at the beginning of their first internationalization. Indeed, the positive impact appears only after a certain level of context-specific experience is accumulated and when the stimulus of an unexpected event triggers its transformation into usable heuristics.

## 1. Introduction

The cognitive microfoundations of decision-making lie at the heart of how firms make internationalization choices (e.g., Foss & Pedersen, 2019; Niittymies & Pajunen, 2020; Vahlne & Johanson, 2020), playing a critical role that is complex and closely related to prior experience in internationalization (e.g., Clark, Li, & Shepherd, 2018). The latter is shown to impact firm internationalizing through, at the least, involvements with cognitive processes that encode the experience through learning, knowledge generation, and capability development (e.g., Autio, George, & Alexy, 2011; Prashantham & Floyd, 2012; Clark et al., 2018; Prashantham & Floyd, 2019), as well as a range of cognitive reasoning processes that enable capitalization on the prior experience (e.g., Bingham, 2009; Jones & Casulli, 2014). Existing research has argued that the benefits of prior experience to firms' internationalization activities can be harnessed through the development of heuristics (e.g., Bingham & Eisenhardt, 2011; Jones & Casulli, 2014; Maitland & Sammartino, 2015a). According to Bingham and Eisenhardt (2011), heuristics – defined as simple rules of thumb or cognitive shortcuts – and their learning through experimentation, play central roles in how managers solve demanding questions in context-specific settings. Research has also suggested that information-intensive and analytically complex decision-making approaches can be less accurate than heuristics in the information environment of international strategy work, one

characterized by increased complexity and fuzziness (e.g., Bingham & Eisenhardt, 2011; Maitland & Sammartino, 2015a). In other words, heuristics are argued to be essential in environments that are challenging or impossible to comprehend rationally due to high levels of complexity and uncertainty (e.g., Loock & Hinnen, 2015). Bingham and Eisenhardt (2011), for example, emphasize that heuristics may provide accuracy with less effort, especially in the context of unpredictable foreign markets. Similarly, Maitland and Sammartino (2015a) stress that heuristics enable managers to make sense of highly complex and uncertain international environments.

Despite these contributions, understandings of the role of heuristics in assessing foreign markets and reaching decisions relating to internationalization remain limited (e.g., Jones & Casulli, 2014; Maitland & Sammartino, 2015a), especially in terms of the influence of context-specific experience. Prior research has argued that heuristics can give direction and coherence to decision-making in unfamiliar environments (e.g., Bingham & Eisenhardt, 2011; Bingham & Halebian, 2012), although it has been suggested that this is dependent on the prior context-specific experience of decision-makers (Maitland & Sammartino, 2015a); indeed, research on the relationship between internationalization and experience has frequently acknowledged the importance of the latter (e.g., Prashantham & Floyd, 2012; Jones & Casulli, 2014). In practice, however, this research has not isolated and differentiated prior internationalization experience based on its context-specificity; rather, it has

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treated all such experience as unitary, even experience from prior ventures and contexts that differ from those of the focal decision-making environment (see, e.g., Bingham, 2009; Autio et al., 2011; Bingham & Eisenhardt, 2011). This is a problematic approach because internationalization experience might not lead to enhanced decision-making abilities in a given situation if it is drawn from a different context (c.f., Jones & Casulli, 2014; Maitland & Sammartino, 2015a) – a lack of precision that could explain conflicting results where prior experience has led to improved internationalization performance in some cases but not in others (e.g., Autio, Sapienza, & Almeida, 2000). Ultimately, the critical link between heuristic decision-making in firm internationalization and context-specific experience remains underexplored.

The purpose of this study has been to investigate how heuristic-based decision-making is influenced by context-specific experience in firm internationalization. I address this question by examining the development of context-specific experience and heuristic decision-making by the managerial teams of two Finnish SMEs implementing their first moves in this direction, both without prior managerial experience of foreign markets. This provides an opportunity to observe heuristic decision-making in firm internationalization without – and then with – context-specific experience, enabling a specific focus on its impact.

The study adopts a qualitative and inductive approach to model the process theoretically (e.g., Gioia, Corley, & Hamilton, 2013), thus contributing to the growing literature on cognition and internationalization by advancing understandings of the relationship between context-specific experience and the development of heuristic decision-making in firm internationalization (e.g., Bingham & Eisenhardt, 2011; Bingham & Halebian, 2012; Jones & Casulli, 2014; Maitland & Sammartino, 2015a). The core insight is that the positive impact of heuristics can be realized only after a certain level of context-specific experience is reached; managers transcend this threshold by acquiring a sufficient level of practical knowledge of relevant foreign markets, entry modes, and internal capabilities to develop heuristics that can be used to address the core questions related to internationalization. The findings also suggest, however, that this transformation requires a successful trigger which, in both studied cases, was the failure of their initial business plans.

The next section outlines the empirical and theoretical importance of heuristic-based decision-making in firm internationalization, followed by explication of methodological choices. Thereafter, the case studies and the derived findings are presented and the emergent model explained. Finally, the paper concludes by discussing the contributions to theory, assessing managerial implications, limitations, and directions for future research.

## 2. Theoretical background

### 2.1. Heuristic decision-making

The understanding of organizational decision-making is largely built on the concept of boundedly rational decision-makers, an idea originating from the work of the Carnegie School, notably March and Simon (1958) and Cyert and March (1963). The central assumption of bounded rationality is that decision-makers are constrained by their cognitive limitations and pursue solutions that are satisfactory rather than objectively optimal (Cyert & March, 1963; March & Simon, 1958). Indeed, the organizational sphere is too complex and uncertain to be fully understood in every detail at the managerial level, who must, therefore, base their decisions on simplified mental representations of their business environment (e.g., Simon, 1991; Gavetti & Levinthal, 2000).

Building on the notion of bounded rationality, recent research suggests that managers do not base their decisions on a careful assessment of all available information in a given instance. Instead, they rely on heuristics that can reduce the cognitive effort in decision-making by ignoring some of the possible information (Gigerenzer & Gaissmaier, 2011). Specifically, heuristics are learned rules, both conscious and

unconscious, that individuals apply to their sense-making and decision-making processes in place of deliberately thinking about and processing large amounts of information (e.g., Gigerenzer & Gaissmaier, 2011). Heuristics are especially useful in situations where decisions are made in conditions of limited information, processing capability, and time (Newell & Simon, 1972). Furthermore, it is argued that heuristics enable effective decision-making in unfamiliar environments by providing direction and coherence (Bingham & Halebian, 2012). It is important to note, however, that this ability is dependent on prior managerial experience of a particular situation (Maitland & Sammartino, 2015a). Recent research has also ascertained this link by showing that firms develop heuristics that are idiosyncratic to their own operations through process experience (Bingham & Eisenhardt, 2011), and that negative outcomes may enhance the learning of heuristics (Bingham & Halebian, 2012). Ultimately, past and underlying experience is regarded as central to understanding how heuristic-based decision-making functions and develops.

Earlier research mainly studied heuristics from two perspectives, both built on the notion that individuals are unable to make fully rational decisions (e.g., Looock & Hinnen, 2015). Traditional “heuristics and biases” research has shown that human decision-making systematically deviates from rationality due to cognitive biases that can lead to errors (e.g., Tversky & Kahneman, 1974; Slovic, Fischhoff, & Lichtenstein, 1977; Kahneman & Tversky, 1979). The more recent “fast and frugal” stream, on the other hand, suggests that heuristics can lead to accurate judgments in complex and uncertain worlds that cannot be fully understood due to the limited information-processing capabilities of the human mind (e.g., Gigerenzer & Gaissmaier, 2011; Artinger, Petersen, Gigerenzer, & Weibler, 2014). The latter view highlights the positive impact: while heuristics are not considered to lead to optimal decisions, they are viewed as an ecologically rational form of decision-making because they can be the best possible alternative in situations where full rationality and perfectly informed decisions are impossible (e.g., Gigerenzer & Gaissmaier, 2011; Luan, Reb, & Gigerenzer, 2019). In fact, while heuristics are traditionally viewed as inferior or second-best to “rational” ways of reaching a decision – in which all available information is collated and processed – recent research has shown that heuristics can be more accurate than such “rational” strategies under many real-world conditions (Luan et al., 2019). Bingham and Eisenhardt (2011) advanced this thinking by placing heuristics as central to strategy – specifically, they were found to be rational and capable of improving key dynamic capabilities. However, the applicability of fast and frugal heuristics to the organizational setting has been disputed on the basis that they rely extensively on research conducted in the context of psychology, which differs from that of strategic management (Vuori & Vuori, 2014).

### 2.2. Decision-making in firm internationalization

Research on the decision-making process that underpins internationalization decisions remains limited (Hennart & Slangen, 2015), especially in terms of their psychological microfoundations (e.g., Aharoni, Tihanyi, & Connely, 2010; Niittymies & Pajunen, 2020; Vahlne & Johanson, 2020). International business research has not been able to reach a consensus on why firms choose a certain entry mode or location for their internationalization (Brouthers & Hennart, 2007; Maitland & Sammartino, 2015b). One reason for the inconsistent results is that the fundamental role of individual decision-makers has only been superficially explored (e.g., Aharoni et al., 2010; Maitland & Sammartino, 2015a); this is problematic because there can be multiple micro-level explanations for macro-level phenomena (e.g., Felin, Foss, & Ployhart, 2015). While the majority of internationalization models and theories are built on the boundedly rational decision-maker constrained by human cognitive limits, the individual manager is rarely adopted as the unit of analysis (e.g., Kogut, Walker, & Anand, 2002; Vahlne & Johanson, 2017) and the multinational enterprise (MNE) is assumed to be

responsible for articulating decisions and strategies (e.g., Aharoni et al., 2010).

A more recent body of internationalization research has focused on managers' attempts to understand the foreign environment (e.g., Autio et al., 2011; Prashantham & Floyd, 2012; Maitland & Sammartino, 2015b), understandings that have been found to vary significantly due to the high levels of complexity and uncertainty in the international sphere (Autio et al., 2011; Maitland & Sammartino, 2015a) that stem from the geographic and cognitive distances between markets (e.g., Prashantham & Floyd, 2012; Williams & Gregoire, 2015; Magnani, Zucchella, & Floriani, 2018). Heuristic decision-making is efficient in situations where complexity and uncertainty exceed the cognitive limits of the decision-maker (e.g., Gigerenzer & Gaissmaier, 2011); thus, it can be considered a valid option for internationalization decisions. Indeed, earlier research has emphasized the strategic importance of heuristic decision-making for complex internationalization decisions because it facilitates sense-making processes (e.g., Jones & Casulli, 2014; Maitland & Sammartino, 2015a), and enables opportunities in unfamiliar foreign environments to be captured (e.g., Bingham & Eisenhardt, 2011).

This positive, facilitating role is linked to prior internationalization experience because heuristics are learned from prior encounters (e.g., Bingham & Eisenhardt, 2011), particularly those taking place in a relevant or similar environment to that of the focal decision-making context (e.g., Jones & Casulli, 2014; Maitland & Sammartino, 2015a). Yet, while existing research has inspected the link between internationalization experience and heuristic decision-making, this body of work rarely assesses the context-specificity of the experience. Rather, the studied experience includes that from multiple different contexts and prior ventures executed by managers (see, e.g., Autio et al., 2011; Bingham & Eisenhardt, 2011). Consequently, despite the central role of context-specific experience in heuristic decision-making, it is a relationship that has not been fully explored. For this reason, I set out to investigate how context-specific experience impacts the heuristic decision-making process in firm internationalization.

### 3. Methodology

#### 3.1. Research setting

Inspecting the decision-making trajectories of individual managers is not a straightforward task as it requires capturing, interpreting, and representing cognitive processes that are hard to observe (Maitland & Sammartino, 2015b). To address this challenge, a case study approach was adopted because it is commonly used to study cognitive processes (e.g., Bingham & Eisenhardt, 2011; Bingham & Haleblan, 2012; Maitland & Sammartino, 2015a), and is considered well suited for the task of answering "how" something emerges (Eisenhardt & Graebner, 2007; Pratt, 2008, 2009). Specifically, I adopted the systematic approach to inductive research recommended by Gioia, Corley, and Hamilton (2013), which is suitable for deriving insights from a specific phenomenon that is inadequately addressed by the existing literature (e.g., Corley & Gioia, 2004; Jay, 2013). Since empirical research regarding heuristic decision-making during a firm's first stage of internationalization remains scarce, the Gioia-based inductive approach can provide the needed initial insights that can help guide further research on the topic (c.f., Corley & Gioia, 2004). To increase the analytical power and the robustness of the study, I investigated two cases rather than one (c.f., Eisenhardt & Graebner, 2007).

The two Finnish SMEs examined here were selected because they did not have prior internationalization experience at the time of their initial entry decisions. Therefore, they provide a good window into how heuristic-based decision-making is influenced by context-specific experience in firm internationalization and, as the two companies were initially novices in the field, they enable observation of the subsequent impact of experience.

The first case, which operates in the health and fitness industry, is

referred to as **Fitness Firm**. It is a small company with around 30 employees and a turnover of 2 million euros, previously operating only in the Finnish environment where it was the market leader in educating health and fitness professionals. Its internationalization journey commenced in 2014, a few years after several health and fitness firms had merged into one larger company. The second case, referred to in this study as **Grooming Firm**, is a franchise company that had previously operated only in Finnish markets where it was the largest provider of grooming services for men. While its main idea is to sell the franchise concept, it also owns its own stores. It has around 12 employees and a turnover of 5 million euros.

#### 3.2. Data collection

As shown in Table 1, the primary data for the study were collected via 21 in-depth interviews from the top management teams of two Finnish SMEs in the middle of their first moves into internationalization. While the interviews were mainly carried out during 2018, 3 interviews were conducted in 2020 with managers of **Grooming Firm** and 6 interviews were conducted in 2015 and 2016 among **Fitness Firm** managers. The interviews lasted from 30 minutes to 90 minutes and were recorded and transcribed, which resulted in more than 350 A4 pages of transcribed interview data.

Interviews were open and in-depth, with the discussions being guided by the interviewer when needed; accordingly, the data are reliant on the researcher's interpretation of each interview event (e.g., Sudaby, 2006; Gioia et al., 2013). As the aim was to achieve as rich a story as possible of how the directors saw the internationalization process, related decisions, and the reasoning behind the decisions, the directors were asked to describe the whole internationalization process as accurately as they could, with further probing questions being asked when something interesting occurred. The interviews also involved questions about the managers' prior experience and background, company history, important events, prior decisions, and future plans, with a particular focus on why something happened or was decided. The interviews were continued until the story was saturated: that is, until no new information emerged.

#### 3.3. Data analysis

The data were analyzed by reducing and coding in the three stages presented in the inductive analysis tenets of Gioia et al. (2013). The method requires a high level of data interpretation in all three stages since the aim is to increase the level of abstraction at every step so that the real-life experiences of interviewees can be transformed into theoretical dimensions (Gioia et al., 2013). Consequently, I have shown and carefully described all phases of data analysis rather than referring to raw data or final interpretations, so that the analysis procedure itself can be followed and exposed to revision (Pratt, 2008, 2009).

Analysis of the cases started by creating first-order themes from the interview data, categorizing frequently occurring topics, and labeling them with informant-based terms. Next, groups were formed from the first order themes and given more abstract labels derived from an interpretation of what the data could mean, thus taking the analysis further towards the theoretical realm. In this phase, I also began to compare the cases and see whether there was a common theoretical story to be found. This led to second-order themes that described a higher-level reality (e.g., that of the firms' top management teams) that was shared by both case companies. Of these themes, some were abandoned because they did not seem to have relevance for the

Table 1  
The interviews.

<b>Case: Fitness Firm</b>							
Director:	FA	FB	FC	FD	FE	FF	FG
Number of interviews	3	3	2	1	1	1	1
<b>Case: Grooming Firm</b>							
Director:	GA	GB	GC	GD	GE	GF	
Number of interviews	2	1	1	2	2	1	

emerging theory. At this point, I combined the cases by lifting the remaining second-order themes into a theoretical realm of aggregate phases<sup>1</sup> that described the purely theoretical aspect of the heuristic decision-making in the case companies.

After the identification of the second-order and the first-order themes, followed by aggregation of the cases, the path from the raw data to the third level theoretical phases was visually demonstrated with a data structure (see Table 2). Finally, the theory that emerged from the data was given life by turning the static themes into a theoretical model that illustrates the process.

4. Heuristic decision-making in firm internationalization

The findings identify and explicate the development process of heuristic decision-making during the companies' first foray into internationalization and demonstrate the influence of context-specific experience. I explain the path from an inability to harness the positive impact of heuristic decision-making to the point where heuristics can be used to develop a strategic direction in a new and unfamiliar international environment. As shown in Table 2, this development happened in four theoretical phases: (1) inability to harness the positive impact of heuristics; (2) systematic gathering of experience; (3) experience threshold; and (4) heuristics-based strategy work. Next, I describe this process by zooming in on the phases and themes and explain how each of these emerged in the two cases. Additional quotes that support the themes and phases are presented in Appendix A.

4.1. Phase 1: Inability to harness the positive impact of heuristics

The first phase encompasses the situation wherein both case companies wanted to internationalize but had trouble doing so because they could not decide what to do. This was because their management teams were unable to harness the positive impact of heuristics, which, it has been proposed, give direction and coherence to decision-making in new situations (e.g., Bingham & Halebian, 2012; Maitland & Sammartino, 2015a). Ultimately, both case companies took their first steps in the internationalization process without a clear strategy of what to do and how. I identified three themes that reference underlying and interlinked mechanisms responsible for the inability to harness the positive impact of heuristic decision-making: (1) lack of experience of the target environment; (2) inability to make sense of the target markets; and (3) inability to plan a strategy.

4.1.1. Lack of experience of the target environment

The first theme reflects the lack of management-level prior experience of their target environments and the consequent limitations on harnessing the positive influence of heuristics in internationalization-related decision-making. I acknowledge the possibility that they may simply have been unable to make strategic business decisions in any environment, not merely the international sphere; however, the

evidence does not support this alternative explanation since both firms were successful in Finnish markets before expanding abroad.

Given that **Fitness Firm** was the market leader in Finland, the management of the company arguably had the ability to utilize heuristics at the domestic level. When the firm started to internationalize, however, the managers were unable to make decisions in the unfamiliar environment because of their total absence of experience of international markets. Director FC was open about this when asked about prior international experience, stating: *"I can frame that frankly: there was no previous experience."*

The managers of **Grooming Firm** who started the process of internationalization likewise did not have experience of international expansion; rather, their expertise had been gathered in the Finnish market where they had already built a solid track record by setting up around 20 shops before deciding to expand abroad. Therefore, the management presumably possessed suitable heuristics for Finnish markets but, due to their lack of international experience, their decision-making abilities with respect to internationalization were severely limited, as Director GF indicated: *"Our greatest challenge was that we did not have the kind of international knowhow and experience to enable us to expand straight away, and we were not ready to sell our license rights to someone directly."*

4.1.2. Inability to make sense of the target markets

The next theme deals with the lack of experience, which manifested as an inability to make sense of foreign markets. The management teams of both companies had decided to expand into European markets without having any experience of them or, indeed, international business in general. Consequently, they struggled to understand what they should do, how the target markets worked, what they could offer that would be of interest internationally, and how to enter the markets in the first place.

The management of **Fitness Firm** found the needs of international markets especially troublesome to grasp and, consequently, could not settle on an optimal product to drive their shift in this direction. As Director FB recalled: *"We had to search long and hard to ascertain where the industry and the individual operators were actually located, and to discover their true needs."* Their early inability to identify market needs became apparent when the management finally understood that the market was not interested in their educational content but rather their systems and procedures for marketing that education. As Director FB observed, *"Clearly we learned and understood what can and what should be internationalized."*

**Grooming Firm's** managerial struggles to make sense of the markets were most pronounced in terms of understanding which target markets had the greatest potential for their first international venture and how to enter them. At first, they considered selling franchise licenses, but they felt cautious about revealing their business innovations to an external partner. In the end, they established their own shop in Germany because a family member of one of the founders lived in Berlin and was willing to run it. Yet, their inability to understand the markets also caused problems in Berlin, as recalled by Director GB: *"We thought that Germans liked 'Finnish honesty' and so forth, but that turned out to be completely wrong";* and by Director GF: *"In Germany, our biggest challenges were the cultural differences. The management culture, working culture, and so on were so different from Finland."*

<sup>1</sup> I use the term "phase" to refer to the third level aggregate concepts instead of the original term "dimension" (e.g., Gioia et al., 2013) because in the study the aggregated third-level concepts are sequential rather than chronologically parallel.

Table 2

Data structure.

Fitness Firm →		Aggregate phases	← Grooming Firm	
First-order themes	Second-order themes		Second-order themes	First-order themes
-Lack of international experience -The decision to internationalize without prior internationalization experience	Lack of experience of the target environment	<b>Inability to harness the positive impact of heuristics</b>	Lack of experience of the target environment	-Lack of international experience -The decision to internationalize without prior internationalization experience
-Lack of understanding of the needs in international markets -Planning is useless due to the lack of reliable information	Inability to make sense of the target markets		Inability to make sense of the target markets	-Lack of understanding of the target market environment
-Lack of strategic direction at the start -Lack of specific product to drive internationalization	Inability to plan a strategy		Inability to plan a strategy	-Lack of internationalization expansion strategy regarding location choices -Lack of entry mode strategy
-Networking with key players to gain information -The systematic use of Europe Active as a source of contacts and information	Learning from networks and institutions	<b>Systematic gathering of experience</b>	Learning from networks and institutions	-Participating in government internationalization support program -Utilizing franchising networks as a source of information -Acquiring external know-how for the board
-Cooperation and JV preparations with a Dutch organization -Search for a strategic partner due to a lack of resources	Learning from experience		Learning from experience	-Establishing shops, own and franchised, in Germany, Estonia, the USA, Spain, and Sweden based on personal relationships
-International experience gained from the cooperation with the Dutch actor	Accumulated context-specific experience	<b>Experience threshold</b>	Accumulated context-specific experience	-International experience gained from networks and establishing shops
-Cooperation and JV with the Dutch organization failed and terminated -Failure with the Dutch actor reveals own core capabilities	Triggering event		Triggering event	-Problems with franchise-holders and profitability -Shops in Spain and USA are closed
-Understanding the needs in the markets -Understanding own position in the markets -Sales and marketing underdeveloped in the industry	Market knowledge heuristics	<b>Heuristics-based strategy work</b>	Market knowledge heuristics	-Ability to understand the host market environment -Ability to understand requirements for location choices within the host market -Ability to understand influential economic factors in the host markets
-Realization of own superiority -Realization of the potential of the IT system	Capability heuristics		Capability heuristics	-Understanding of own business model -Understanding the target markets in terms of its own business model
-Strategic direction formed during internationalization -Product for internationalization created in response to market understanding -IT System became the primary product for the internationalization	International expansion heuristics		International expansion heuristics	-Understanding of required/suitable entry mode -New expansion strategy formed -Adopting master-model -Franchise agents hired -Establishing master franchise shops in Sweden and Denmark

#### 4.1.3. Inability to plan a strategy

The last theme of the phase is an outcome of the two previous themes and a major indicator of an inability to harness the positive impact of heuristics in decision-making. It highlights how the management teams of the two companies were unable to plan a strategy for internationalization because their lack of international experience restricted their abilities to understand the foreign environment.

The struggles of **Fitness Firm's** top management with strategy work were especially prominent in terms of product strategy, as stated by Director FA: *"We have spent a lot of time trying to devise which of our products would work best for internationalization, something so good that it captures the attention of international markets. It has been a really long process and there has been a lot of thought about what it could be and what it will be."* Ultimately, they had no idea what else to do besides physically going abroad, meeting people, and trying to figure out what to do.

**Grooming Firm's** inability to plan a strategy can be seen from its directionless behavior while undergoing internationalization. As indicated by Director GE, the management team did not systematically plan to enter the markets in which they eventually found themselves: *"It [internationalization] was done very aggressively, but maybe not very systematically. Not based on what we knew but rather, 'We are doing it now!' That was the mentality."* Furthermore, as recalled by Director GA, the partners were not selected systematically; rather, the management received a signal of interest from a party, which led to the opening of a shop with vague demands in terms of entrepreneurial abilities or

location: *"These [shops] that have been opened are the result of someone indicating she/he wanted to enter that market. That was not necessarily the smartest option. We should have conducted market research and thought more..."*

#### 4.2. Phase 2: Systematic gathering of experience

The second phase consists of a stage in the development of heuristic decision-making when both firms became aware of their shortage of experience and the restrictive influence of this on their decision-making. Subsequently, both developed systematic ways and strategies to acquire the knowhow to overcome the shortage. The phase comprises two themes dealing with the informants' modes of acquiring the experience to further the internationalization process: (1) learning from networks and institutions; and (2) learning from experience.

##### 4.2.1. Learning from networks and institutions

This theme revolves around the first of the two ways utilized to acquire experience from the European markets after the management teams realized that they lacked sufficient understanding to operate in them effectively; both companies concluded that, by systematically building and utilizing networks with larger actors and institutions, they could acquire the information and knowledge they needed in this field.

**Fitness Firm's** management, on realizing that their shortage of experience could hinder their plans to internationalize, decided to



augment their experience by participating in the events and operations of Europe Active – a large European-wide association for health and fitness firms and professionals. As Director FC stated, Europe Active provided access to the association's own experience, as well as the means of networking with larger players from European markets:

*The first consideration was how the market could be charted, whether it required formal market research or if it were possible to form perceptions by just going and doing. Could we find something that would provide a gut feeling that could guide us to people who had the same feeling. Very soon it turned out that there was, and in this was Europe Active.*

The management of **Grooming Firm** acquired experience in three different ways. First, they decided to seek help from the Finnish government's acceleration programs, which provided funding and help for new firms in the process of internationalizing. Second, as Director GF recalled, they networked with other franchise providers and experts: *"We acquired a perspective from franchise experts on how we should do it [internationalize]. Properly speaking, it was with their help that the smartest way for us to proceed became clear."* Finally, external knowhow was brought into the company's board which was described by Director GF in the following way: *"In addition, our whole board of directors was renewed, which allowed us to introduce considerable external knowhow."*

#### 4.2.2. Learning from experience

This theme touches upon the second way that the management teams of the two companies acquired the necessary understanding: learning by experiencing the internationalization process itself. Indeed, while this process is distinctly different in each business, both reported that experiential learning played a major role in their internationalization.

As described by Director FB, the management of **Fitness Firm** wanted to internationalize with the assistance of a more experienced partner because they felt that they could not do it alone due to lack of experience: *"To be able to grow strong enough [to survive] we need a partner that has, for example, already been networking for a decade with the industry's actors."* This resulted in their negotiating and planning a joint venture with a larger international company, preparation for which provided **Fitness Firm** management with first-hand experience of the internationalization process.

Meanwhile, the management of **Grooming Firm** gained first-hand experience by establishing shops in five countries, utilizing various entry modes. While they had neither a clear strategic direction nor systematic approach to entry modes or location choices, the experience they gained from the process was a steep learning curve, as stated by Director GB: *"The temerity and boldness to attempt and to achieve new things have taught us enormously, giving us an insane amount of information and understanding of the world."*

#### 4.3. Phase 3: Experience threshold

The third phase illuminates how the company management teams gained enough experience to harness the advantages of heuristics in internationalization-related decision-making. In the course of this, they transcended the "experience threshold" that marks the minimum amount of experience that is needed to utilize heuristic decision-making in completely unfamiliar environments. However, I also observed that experience does not transform into usable heuristics as soon as it is acquired; rather, it must be triggered by a stimulus after the experience threshold has been crossed. The phase is constituted by two themes: 1) accumulated context-specific experience, and 2) a triggering event.

##### 4.3.1. Accumulated context-specific experience

This theme relates to the first of the two factors that comprise the experience threshold: accumulated context-specific experience. Both firms systematically acquired experience in various ways, leading them to accumulate a certain amount of context-specific experience, which,

however, did not in itself enable the positive impact of heuristics in decision-making to be achieved.

As Director FA stated, over the entire internationalization process **Fitness Firm** managers absorbed a range of new perspectives: *"It has been a really important time period for us in the sense that we have learned about those markets, become familiar with the actors, and seen their way of doing things."* Yet the acquired experience did not improve the management's capabilities in terms of strategic decision-making; no major changes to product or entry strategies were instigated, even though they arguably had a sufficient amount of context-specific experience to reformulate strategy at this point.

The management of **Grooming Firm** accumulated experience from opening stores in multiple markets, networking with players in the franchise field, and by acquiring external knowhow. This allowed them to gather enough context-specific experience to cross the experience threshold. It did not, however, lead to enhanced capabilities in strategy work or changes in expansion strategy; rather, the management team kept opening stores without a systematic strategy for some time before the change occurred. Director GB described the accumulation of experience and the actual learning that occurred later in the following way:

*Now that we have been 11 years in this business, we have noticed that most of the countries we expanded into early on, such as Spain, Germany, and the USA, are damn hard. Spain has low price levels, wage levels, and economy in general. The German skepticism [is a problem]; the USA is too far away to control, govern, and train. We have noted those mistakes have been made; they caused losses, but we have achieved a terrific learning curve. Now it is much more structured.*

##### 4.3.2. Triggering event

The second theme of the phase refers to how a triggering event – a failure in both cases – started a process whereby the accumulated context-specific experience was transformed into heuristics that could facilitate strategic decision-making. While the failures of the case companies were different in nature, they had the same triggering effect.

In the case of **Fitness Firm**, the point where acquired experience transcended the experience threshold and transformed into usable heuristics can be located in the aftermath of a failed partnership with a larger international firm. The failure meant that the management had to reconsider the situation in light of their acquired international experience, which started a cognitive process that transformed it into heuristics. While the management team had learned steadily throughout the whole internationalization process, the partnership failure concretized it all, something which is evident in the management team's increased understanding. In fact, as indicated by Director FB, the management felt that the failure itself was a source of learning and experience: *"Partnership-wise the Dutch partner candidate brought us much more than just negotiation costs. It also brought a substantial amount of vision and contacts."*

The point where **Grooming Firm**'s experience transformed into heuristics can be traced to the emergence of problems with franchise entrepreneurs and profitability which were connected with the shops that had been opened without a clear strategy. In the most problematic markets – Spain and the USA – the problems escalated to a level where the management team had to shut the outlets. According to members of the management team, this was a hard and unpleasant decision that led them to rethink their situation and strategy in order to prevent similar events in the future. Director GF described the situation in the following way:

*Pretty soon we realized that Spain, Malaga especially, Fuengirola, are not smart locations at this point and made the decision to close them. In a way, we took a step back in our internationalization. At the same time, a few shops had been opened in Florida and we decided to merge operations in the USA [although] we understood that the USA markets are much harder and more challenging than we had anticipated. There are legal*

challenges and many other things... Over the past couple of years, we have reorganized and renewed our strategy to clarify how we are going to proceed. Now we are in good shape in the sense that we have a pretty strong understanding of the model that we are using to expand to new markets. We have this master-franchise model that we will use.

#### 4.4. Phase 4: Heuristics-based strategy work

The fourth phase refers to the period when heuristics could finally be used in strategic decision-making, and the central role they thus played in firm internationalization. The phase is constructed from three themes that emerged from an analysis of how the management teams developed heuristics to understand and internationalize in their environment: (1) market knowledge heuristics; (2) capability heuristics; and (3) international expansion heuristics (these are further illustrated in Table 3).<sup>2</sup> I view the explicated understandings at management level as heuristics since they are rough simplifications of reality, used to cope with a complex environment. For example, **Grooming Firm's** heuristic understanding that the foreign shop must be run by a local person is not completely accurate as there are likely to be managers and entrepreneurs who could run a barbershop without being local, but it is accurate enough for its purpose: facilitating internationalization-related decision-making.

##### 4.4.1. Market knowledge heuristics

The first theme reflects how the management teams of both firms developed simple heuristic rules that helped them to understand the markets. Specifically, there was a clear difference in managerial understanding before and after they acquired the experience that, triggered by an event, was transformed into heuristics. I argue that this sudden ability to make sense of the target market is mainly related to the heuristics that emerged.

The understanding of **Fitness Firm's** management particularly increased with respect to the needs and competitive landscape of the health and fitness industry in European markets, where, as indicated by Director FC, they developed a heuristic understanding that sales and marketing knowhow is underdeveloped: *"We recognized that there are not the strong actors in Europe that our firm is in Finland in its own domain."* – Director FC

**Grooming Firm's** management, on the other hand, gained a better grasp of doing business in Europe in terms of the problems they had in identifying the characteristics of suitable markets and shop locations. While managers reported that they made costly mistakes with the stores' country and location choices at the beginning of the internationalization process, after the failure they were able to identify multiple characteristics of a suitable market, as pointed out by Director GE: *"There must be a certain price point for everything and the GDP must be appropriate because our service costs a certain amount and running a shop costs a certain amount, but, for example, we have potential markets in most of the developed countries in Europe. There must be enough solvent customers. That is pretty much the criteria that we use."* They also developed a heuristic understanding that local knowledge plays a prominent role in managing a shop, as indicated by Director GC: *"Local knowledge is a major thing in getting the shops into the right places."*

##### 4.4.2. Capability heuristics

The second theme describes how the two companies' management teams developed heuristic understandings of the capabilities that impact their internationalization by using their developed understanding of the target markets as a reference point. This developed understanding may be about the capabilities that the firm can utilize in their

**Table 3**

The identified heuristics.

Firm	Type of heuristics	Heuristic understanding	Illustrative quotes
Fitness firm	Market knowledge heuristics	-Sales and marketing knowhow is underdeveloped in Europe	"The industry's actors' way of doing things is very unsystematic when compared to the actions of more established industries. In this health and fitness sector, the way of doing things is still very far from a professional organization's actions." – Director FB
	Capability heuristics	-We are superior in terms of sales and marketing and IT systems	"We understood that nobody here has anything to teach, that we must come here to teach. This is the biggest thing we figured out." – Director FC
	International expansion heuristic	-Sell sales and marketing system	"At this point, we are proceeding with the system software as a primary product." – Director FB
Grooming firm	Market knowledge heuristics	-Running a shop requires local knowledge -The market must have certain price-level and service culture	"Local knowledge is a major thing in getting the shops into the right places." – Director GC "Primarily, we consider markets where we see that our business can prosper. The price of the service must be high enough and then there must be service culture so that the customers are willing to pay for the service." – Director GA
	Capability heuristics	-The shop must always be run by a local person -Our business can only work in countries with higher price-levels	"It [the entrepreneur] must definitely be local." – Director GA "If you go into a new market and you have a person who is not local and does not know anything... He would be as clueless as we are." – Director GA
	International expansion heuristic	-Select wealthy countries -Find a master-entrepreneur to run operations in the whole country	"Now we focus on markets where we see that the price of this service is realistic compared to our service concept." – Director GA "We have done an analysis of price levels, wage levels, what kind of structure there is. With these understandings, we can decide whether a market appears suitable for our business to work." – Director GF "Now we have totally new plans. Now we have a local entrepreneur, to whom we have sold all rights in the country. Now the entrepreneur operates there locally, with our

(continued on next page)

<sup>2</sup> I acknowledge Gerd Gigerenzer for his helpful comments regarding the explication of heuristic understandings.



Table 3 (continued)

Firm	Type of heuristics	Heuristic understanding	Illustrative quotes
			guidance and advice naturally. It is a big change to the old [system]...” – Director GC

internationalization or a lack of certain capabilities and the consequent impact.

**Fitness Firm’s** management team, for example, reached the realization that their sales and marketing system was more developed than those of international competitors and consequently started to view it as their core capability in European markets, as Director FB observed: “We have something to give to their business.”

As Director GB indicated, **Grooming Firm’s** management developed a heuristic understanding that their foreign shops must be run by a local person after they reflected on their own capabilities and came to the conclusion that they could not run such enterprises without local knowledge: “We have learned that the person who runs the business must always be local.” This was further supported by Director GA’s observation: “If you go into a new market and you have a person who is not local and does not know anything... He would be as clueless as we are.” He added, however, that the management was able to develop heuristics for understanding the preferred characteristics of suitable markets with respect to the requirements of their own business, saying, “Now we focus on markets where we see that the price of this service is realistic compared to our service concept.”

4.4.3. International expansion heuristics

The final theme, “international expansion heuristics”, builds on the two previous themes of this phase. It shows that the management teams of the two companies learned heuristics that facilitated their strategic decision-making; it further explicates how they were able to create internationalization strategies by utilizing the heuristic understandings they developed of the markets and intra-firm capabilities.

As Director FC indicated, **Fitness Firm’s** management was able to build a new internationalization strategy based on the heuristic understanding that their strong competence in sales and marketing systems provided opportunities in European markets where systems were less developed: “Our whole product strategy has emerged from this process.” Consequently, the management built a new IT product to address the perceived need in the market, which became their primary offering in internationalization, as Director FB observed: “At this point, we are proceeding with the system software as a primary product.”

Meanwhile, **Grooming Firm’s** management developed heuristics that were suitable for their own target markets, which enabled the management team to harness the advantages of heuristic decision-making and create a new expansion strategy. Director GF described the development process in the following way: “It did take time for the operating model to crystallize but, at the same time, we have acquired a good understanding of how it works. The answer is yes, now we have a very clear strategy and our operations and internationalization strategy are on a track that we are utilizing to proceed.” In the new strategy, country selection was based on the developed heuristic understanding of the characteristics of suitable markets, as pointed out by Director GF: “We have done an analysis of price levels, wage levels, what kind of structure there is. With these understandings, we can decide whether this market appears suitable for our business to work.” Furthermore, as the management team developed a heuristic understanding of their limited operational capabilities in the foreign markets, they adopted the master-franchise concept, whereby a master-entrepreneur is chosen from each market to take care of expansion within it. As Director GC put it: “Now we have totally new plans. Now we have a local entrepreneur, to whom we have sold all rights in the country.

Now the entrepreneur operates there locally, with our guidance and advice, naturally. It is a big change to the old [system]...”

5. Emergent theoretical model

Fig. 1 depicts the model that emerged from examining the experiences of the two case organizations. It captures the four theoretical phases that explain how an inability to harness the positive impact of heuristics in strategic decision-making, in an unfamiliar international environment, enables these vital shortcuts to be rejigged. In particular, the findings uncover the fundamental but previously untheorized role of context-specific experience and the mechanisms through which it influences the development of heuristics. In what follows, I elaborate on how the case companies progressed through the phases of the model, providing additional support for the model’s plausibility by reflecting on recent research on the topic (see, e.g., Eisenhardt & Graebner, 2007).

In the first phase, the top management teams of the case companies were unable to harness the positive impact of heuristics in decision-making when embarking on international expansion because heuristics are context-specific (e.g., Looock & Hinnen, 2015) and learned from experience (e.g., Bingham & Eisenhardt, 2011; Gigerenzer & Gaissmaier, 2011). The managers did not have any prior experience of either internationalization or the target markets, thus they could not draw on appropriate heuristics to facilitate internationalization-related decision-making, leaving them unable to make sense of the foreign environment. Since heuristics play a major role in such sense-making (e.g., Maitland & Sammartino, 2015a), the inability to do so arguably resulted from a lack of suitable heuristics. Ultimately, managers were unable to decide what to do and how, or plan a strategy for international expansion, because they could not utilize known heuristics in order to understand the situation.

In the second phase, the management teams realized that they were unable to understand the foreign markets and make plans due to a shortage of context-specific experience, leading to feelings of uncertainty (see, e.g., Alvarez & Barney, 2005) that initiated the systematic gathering of experience from target markets, entry modes, and internal capabilities (see, e.g., Autio et al., 2011). Both management teams did this by simultaneously utilizing multiple sources of experience and learning, such as networks, institutions, and experiential learning.

In the third phase, by accumulating context-specific experience, the management teams surmounted a threshold, marking the minimum amount of experience required to develop a set of heuristics that could be used to facilitate decision-making in an unknown environment. At first, however, the management teams did not exhibit any signs of learning or change in behavior, instead continuing on the same track. This demonstrates that experience does not automatically transform into usable heuristics as soon as it takes those gathering it over the threshold point. Rather, in the two examples discussed, it required a triggering

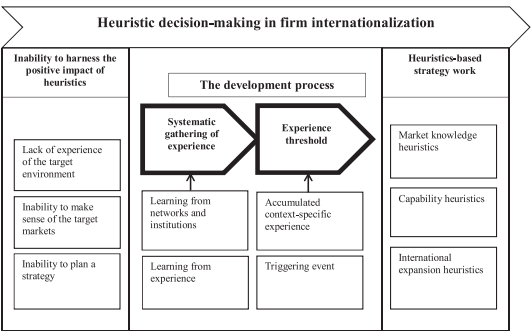


Fig. 1. Heuristic decision-making in the process of firm internationalization.

event – a failure in both cases – before management teams reconsidered their situation and reconstructed their heuristic portfolios from their newly acquired context-specific experience. This could then be used to address key questions related to their internationalization strategy. While the literature on learning acknowledges the positive influence of failures in the process (Autio et al., 2011; Bingham & Halebian, 2012), in these cases, failure played a very special role as a triggering event. However, this triggering can only happen after the experience threshold is surmounted, because heuristics are proxies or cognitive shortcuts containing a large amount of information (e.g., Bingham & Eisenhardt, 2011; Gigerenzer & Gaissmaier, 2011); thus, they cannot be built without a sufficient amount of experience.

In the final phase of the model, the management teams could draw from heuristics in their decision-making and thus were able to develop strategies for international expansion. As a result, they started to exhibit systematic behavior in executing this strategy. Since the link between experience, heuristics, and the ability to understand the foreign environment (see, e.g., Maitland & Sammartino, 2015a), and the context-specificity of heuristics (see, e.g., Bingham & Eisenhardt, 2011; Look & Hinnen, 2015), is recognized in the existing literature, I propose that the management teams created a set of heuristics from the acquired context-specific experience that enabled them to understand the new foreign environment as well as their own capabilities and match these two elements in order to develop strategies that would guide their internationalization.

## 6. Discussion and conclusions

### 6.1. Contributions to the literature

Prior research emphasizes the strategic importance of heuristics in internationalization choices (e.g., Bingham & Eisenhardt, 2011; Bingham & Halebian, 2012) and suggests that the positive influence of heuristics in decision-making is contingent on prior experience from related contexts (e.g., Jones & Casulli, 2014; Maitland & Sammartino, 2015a). Yet knowledge of the impact of context-specific experience on heuristic-based decision-making in internationalization remains scarce, especially in cases where prior context-specific experience is not possessed by decision-makers. The present study advances understandings of this issue. Its primary contribution is the construction of a theoretical framework that identifies the relationship between context-specific experience and heuristic decision-making in firm internationalization. The framework explicates the influence of the former on the development of the latter in a firm's first steps in internationalization and a firm's consequent ability to harness the advantages of heuristics in decision-making in an unfamiliar environment without prior international experience. Thus, the study advances existing research on the cognitive foundations of firm internationalization in several ways.

First, it demonstrates that a sufficient level of context-specific experience is required before the positive impact of heuristic decision-making can be harnessed in firm internationalization. The findings are consistent with earlier research in showing that heuristics provide a way to internationalize efficiently without developing a nuanced understanding of the foreign markets (e.g., Bingham & Eisenhardt, 2011; Maitland & Sammartino, 2015a), and that heuristics can provide direction and coherence to decision-making in new environments (e.g., Bingham & Halebian, 2012). The present findings advance this literature and go beyond current understanding, by showing that heuristic decision-making does not lead to positive outcomes without prior context-specific experience. This is consistent with the findings of Maitland and Sammartino (2015a), who suggest that the use of heuristics in making sense of an environment is linked to prior context-specific experience. Similarly, it supports the suggestion of Jones and Casulli (2014) that heuristic reasoning is appropriate for decisions concerning internationalization goals when the target market is similar to the environment where the prior experience is

acquired. Indeed, previous research has acknowledged the importance of the context-specificity of the experience for understanding any environment and the decision-making therein (e.g., Prashantham & Floyd, 2012; Jones & Casulli, 2014; Maitland & Sammartino, 2015a), yet, in existing empirical research, the prior experience is often treated in a rather general way without linking it to the focal decision-making environment (see, e.g., Bingham, 2009; Bingham & Eisenhardt, 2011; Autio et al., 2011). The lack of contextual precision in inspecting the influence of past experience can be problematic because decisions that are made based on prior practice in different contexts might not lead to desired outcomes (c.f., Maitland & Sammartino, 2015a). Ultimately, the impact of context-specific experience on heuristics is an underexplored topic in the research literature. Thus, the findings here provide a novel contribution to the cognitive internationalization literature in terms of the influence of context-specific experience on heuristics and decision-making.

Second, the study provides insights into the mechanisms of how managers learn during their first internationalization attempts. The findings show that the development of heuristic decision-making is initiated when managers start to acquire context-specific experience systematically, as they become aware that their lack of experience is restricting their decision-making. While previous research has already demonstrated that prior experience can reduce uncertainty (Alvarez & Barney, 2005) and that uncertainty can initiate learning (Autio et al., 2011), I suggest that the systematic gathering of experience discussed here resulted from the perception of uncertainty caused by the lack of experience felt by the management teams. These insights advance our understanding of the mechanisms that lead to learning and show that the findings of Autio et al. (2011) and Alvarez and Barney (2005) also apply to the management teams of companies that are embarking on their first attempt at internationalizing without any prior international experience. Furthermore, the findings show that SMEs can acquire context-specific experience during internationalization by utilizing multiple different learning processes simultaneously, such as networks, vicarious learning, and experiential learning. This is consistent with the findings of Park and Harris (2014) in the analogous case of international joint ventures. Accordingly, these insights advance prior understandings by demonstrating that multiple simultaneous learning processes also shape the international expansion process in cases of early internationalization efforts by SMEs.

Third, while previous research has argued that experience leads to learning and better decision-making abilities (e.g., Bingham, 2009; Autio et al., 2011; Bingham & Eisenhardt, 2011), the findings of this study go beyond this understanding by showing that the acquired context-specific experience did not immediately lead to enhanced decision-making. Indeed, the study's most striking finding is that experience does not transform into heuristics until a certain level of context-specific experience is reached, thus indicating that there is an experience threshold that must be transcended before management teams can harness the benefits of heuristic decision-making in a new environment. The existence of this threshold shows that the relationship between experience and heuristics is not as direct as has been assumed in the literature (e.g., Bingham & Eisenhardt, 2011; Bingham & Halebian, 2012; Maitland & Sammartino, 2015a). This makes measuring the relationship between experience and heuristics-based outcomes more challenging as, while the experience might exist, it might not yet have transformed into heuristics and therefore may appear irrelevant in terms of decision-making. Consistent with this finding, Maitland and Sammartino (2015a) also reported in their study that the link between experience and rich sense-making was not unambiguous. The notion of an experience threshold thus extends the findings of Bingham and Eisenhardt (2011) that firms learn heuristics from experience, further explicating the role of experience in the development of heuristic decision-making and affirming the embeddedness of experience in a particular context. Furthermore, these insights advance cognitive internationalization research beyond the heuristics perspective. Indeed, while prior research has explicated factors that mediate the influence of

experience on cognitive capabilities, such as the prior resilient experiences of managers and skills in reshaping capabilities (e.g., Autio et al., 2011), the fact that experience does not instantly transform into a usable form (e.g., heuristics, routines, or capabilities) has been overlooked (e.g., Autio et al., 2011; Prashantham & Floyd, 2012; Jones & Casulli, 2014; Clark et al., 2018; Prashantham & Floyd, 2019).

Fourth, the findings also show that merely crossing the experience threshold does not produce heuristics but, rather, this needs the trigger of a relevant event, which forces managers to reconsider their situation in light of their newly acquired experience and thus reconstruct their mental model. While prior research has shown the positive influence of failures and successes on the development of cognitive capabilities (e.g., Autio et al., 2011), including heuristics (e.g., Bingham & Halebian, 2012), I argue that failure or success in itself does not do all the work, but rather acts as a trigger that starts a transformation in which mental models are reconstructed in light of acquired experience from a potentially lengthy period preceding the triggering event. For this, managers must possess a certain minimum amount of context-specific experience because sufficient building material is required to develop heuristics that can accurately capture the necessary details of the new environment; thus, an inadequate level of experience does not lead to usable heuristics even in the presence of a triggering event.

What constitutes a minimum amount of experience is arguably dependent on the complexity of the environment; therefore, the exact level of required managerial experience cannot be defined and can only be retrospectively observed. That is, if a triggering event occurs and usable heuristics do not develop, the conclusion can be drawn that a sufficient amount of context-specific experience was not available. These findings, by explicating the novel mechanisms of the process, advance existing research on the development of cognitive capabilities during internationalization that has examined how managers revise their mental models as a result of acquiring experience (e.g., Autio et al., 2011; Bingham & Eisenhardt, 2011). Specifically, the findings shed more light on the assumption that managers automatically revise their mental models based on stimuli from new foreign markets (e.g., Autio et al., 2011) and constantly develop their portfolios of heuristics (Bingham & Eisenhardt, 2011). Instead, the findings reveal that such developments are not a constant process but occur in development sprints that are triggered by a stimulus. In both studied cases, the stimulus was in the form of a failure.

## 6.2. Managerial implications

The findings support the growing view that heuristics can lead to accurate, even superior, decisions in firm internationalization because fully informed and fully rational decisions are rarely an option during such processes (e.g., Bingham & Eisenhardt, 2011). However, despite the promising findings, heuristics can also be a source of danger for their users: if they are developed from a sufficient amount of experience acquired from a suitable context they can enhance decision-making capabilities; but, if based on experience from an inappropriate environment, they can lead to errors in decision-making. The problem is that managers have very few tools for assessing whether their heuristics are based on suitable experience. Indeed, in both the companies analyzed here, the managers experienced costly failures at the beginning of their moves into internationalization, even though they were aware of their experience shortage, indicating that it is challenging for management teams to assess their understanding of a given situation and the quality of the heuristics they possess. Ultimately, managers within a company should not fully trust the heuristics at their disposal in internationalization decisions without experience in the same or at least very similar environments. In particular, as can be seen from both cases, basing judgment on heuristics is especially dangerous in a firm's first moves into internationalization, when prior context-specific experience is not available.

Furthermore, the developed framework suggests that managers must

transcend an experience threshold before knowhow gained over time can be transformed into usable heuristics. For practitioners, this means that they should be aware, firstly, that they need a sufficient level of experience in the target market or similar environments, and, secondly, that experience alone is not enough if the current mental model or heuristic rules are not updated with the acquired experience. However, the problem here is that it is hard for managers to assess whether they possess enough experience to develop heuristics that can facilitate decision-making and whether their mental models have incorporated the latest experience. To counter these problems, managers should promote deliberate self-reflection and alertness to underlying heuristic judgments when entering unfamiliar markets.

## 6.3. Limitations and directions for future research

In this study, I set out to investigate the relationship between context-specific experience and heuristics-based decision-making in the context of internationalization, which is a domain that has received scant empirical inspection. Therefore, I chose an inductive theory-building approach, which is good for deriving novel insights from an inadequately studied topic but is subject to some inherent limitations, notably the generalizability of the findings due to the small number of cases. Thus, I clarify that the purpose of this study, and the selected method, is to develop a theory, not to test it. To these ends, theoretical sampling of a small number of cases is appropriate (Eisenhardt & Graebner, 2007). Furthermore, while there is no absolute figure for the number of interviews that would guarantee the reliability of a sample (e.g., Suddaby, 2006), many studies in the field have been conducted with more than 40 interviews, while the theoretical insights of this study are derived from 21. However, while modest in number, they are rich in quality and thus provide a strong empirical basis, even providing longitudinal data through lengthy in-depth interactions with relevant decision-makers.

The findings and the developed theoretical framework are an early step towards understanding complex heuristic decision-making processes in an international setting and can provide direction for further research. Indeed, studies on the cognitive microfoundations of managerial decision-making is a fertile field (e.g., Walsh, 1995; Kaplan, 2011) that has much to offer to international business research due to the high levels of uncertainty and complexity that characterize the international business environment (e.g., Zachary, Gianiodis, Payne, & Markman, 2015). A potential endeavor for future work could be that of improving the framework depicted in this paper, which would especially benefit from a further inspection of (1) possible sources and types of experience that can be transformed into heuristics, (2) possible stimuli that can trigger the transformation from experience to heuristics, and (3) possible additional or alternative mechanisms related to this process. An important question that also calls for analysis is how the required minimum experience relates to the complexity of the task environment. Finally, as the world is digitalizing at an increasing pace, the use of digital technologies in acquiring knowledge to facilitate the development of heuristics provides an interesting domain for further research (see, Pergelova, Manolova, Simeonova-Ganeva, & Yordanova, 2019).

## Declaration of Competing Interest

The authors report no declarations of interest.

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## Appendix A. Additional supporting quotes

Additional supporting quotes		
<b>Inability to harness the positive impact of heuristics</b>		
<b>Theme</b>	<b>Fitness firm</b>	<b>Grooming firm</b>
Lack of experience of the target environment	"Not really strong international background, my own international background is mostly from this project." -Director FB	"CEO does not have international experience." -Director GE "They [the founders] have acquired international experience by doing but it has come through trial and error." -Director GE
Inability to make sense of the target markets	"At the beginning, we went, did, and watched what the future holds since we really didn't know what was outside of Finland." – Director FA "Let's think about the year 2012–2013 and compare it with the year 2016. We set out to internationalize personal trainer knowhow but now we are selling the sales- marketing, digital learning environment, software that is behind the personal trainer course." –Director FA	"We live here in such a small place, so we see these things from different perspectives whereas internationally it is a completely different perspective." -Director GF "We set out to international markets before we were ready. Our processes, support activity, materials... They were not where they should have been. We did not even know exactly what we are." -Director GA
Inability to plan a strategy	"We have had a long consideration about what will be our selection for international markets and the consideration has been around expertise, this personal training coaching philosophy, materials, and from those to the systems and sales processes and so on..." – Director FB "This field is so new and it cannot be known where it is heading and what product will work, so it has been very valuable information what we got from there and where are we heading now." – Director FA "Strategy has been that there is no strategy." – Director FC	"There was not too much strategic planning but instead they just went [international]. It would be nice to say that we did market research and came to these solutions, but it was not like that at least in our case." -Director GD "We rather did so that we go and see what happens. We go there, try it out, see what happens and if it does not result in anything we can stop." -Director GB
<b>Systematic gathering of experience</b>		
<b>Theme</b>	<b>Fitness firm</b>	<b>Grooming firm</b>
Learning from networks and institutions	"And that way we also got that network for us and received information about what is going on there." Director FA "Then we got the right channels to certain places so that we can keep up what is happening in the scene, European wide." – Director FC "There the chemistry matched in a magnificent way with the Europe Active's management and we found that at this point there is no reason to start formally research markets, instead we do just fine by informally charting the situation through networks." – Director C	"You need to find mentors or persons who have done similar things before and they must be contacted and cooperated with. That was a big lesson... That everything should not necessarily be learned through trial and error. That is not necessarily the smartest or cheapest way." -Director GF "When there were around twenty shops in Finland, we were in a situation where we did a few projects for ELY-center. We did this global project where we analyzed internationalization possibilities and charted markets and our business idea, and how could it work. We knew that when the global project is done, it opens different paths to different funding opportunities from the government. We did it first and applied for development funding from ELY-center and with it, we charted how can we proceed. We then used that to do NIU-project application." -Director GF "We decided that we choose a country and do it [internationalization] ourselves first and learn these cultural differences and what things we must take into account when we are expanding to a new market." -Director GF "We tried all kinds of models and we learned from them." -Director GD
Learning from experience	"At the beginning it was really central to get negotiations open as wide as possible, with as many partners as possible, to understand the market as well as possible." – Director FC "There was no possibility to invest much so we understood that it must be done through some sort of partnership solution, the internationalization out of Finland." – Director FC	
<b>Experience threshold</b>		
<b>Theme</b>	<b>Fitness firm</b>	<b>Grooming firm</b>
Accumulated context-specific experience	"Large networks to Europe and through Person X we became acquainted with many kinds of people and recognized many different types of actors from the markets. So, it has been a really important time period for us." – Director FA "For two and a half year learning costs, I would say that, in a matter of fact, amazing performance!" – Director FC	"On the other hand, if we had not done these things, we would not be at this point now. We would be much smaller, and we would have much fewer shops and much less know-how. We have learned things through trial and error." -Director GA
Triggering event	"Negotiations ended a few months back when we had not in a few years' time to get any kind of agreement what should we do." – Director FA "After we noticed that it is not necessary... At that time, year and a half ago it seemed that or even a couple of years back, that we need insiders as partners so that the doors will open but we have found out later that even for that you don't need a strategic partner..." – Director FB	"We closed Spain and came back tail between our legs. It does not mean that we are not going to Spain one day. I'm sure we will, but back then we went with the wrong model and with the wrong people, the wrong city, and even within the wrong city, we had the wrong location. Just basic mistakes. But altogether, without those mistakes, we would not have been able to create these models and strategies. Mistakes are good because you learn from them." -Director GD "We realized at that point that we must pull the brakes. We cannot open shops here and there anymore. We must figure out how it works in different places, how can we do it better, and what is a smart thing to do." -Director GF
<b>Heuristics-based strategy work</b>		
<b>Theme</b>	<b>Fitness firm</b>	<b>Grooming firm</b>
Market knowledge heuristics	"We understood that nobody here has anything to teach, that we must come here to teach. This is the biggest thing we figured out." – Director FC "The industry's actors' way of doing things is very unsystematic when compared to many other industries, the actions of more established	"The critical mass must bypass it so that they can see the brand and be aware that there is a barbershop. It must be a location where people are and can go to the barber. It is very important in my opinion when the location is chosen." -Director GE

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Additional supporting quotes	
	industries. In this health and fitness sector, the way of doing things is still very far from a professional organization's actions." – Director FB
Capability heuristics	"We considered what the need is there and then we adjusted our own supply to equivalent." – Director FC
International expansion heuristics	"Development of the ecosystem became a cutting edge for our present internationalization." – Director FB
	"Primarily the markets where we see that this kind of business has a clear reservation. The price of the service must be high enough and then there must be service culture so that the customers are willing to pay for the service. We have problems to go to a market where the price of the service is really low. If we consider that the haircut cost, for example, 10 euros, then it is hard to make the 10 euros to be enough for all parties unless the workforce is completely free..." -Director GA "They have a strong tipping culture in the USA, so we had to modify our systems so that they match with the tipping culture. If we think of our membership model, we should not take it to every country because it will not work like that. People will come more often than we expect and then our model will not work. We had to change the membership model and reporting practices." -Director GE "We must have a local manager who runs the shop" – Director GA "We saw that we do not have any possibility to run a business in Spain from Finland" – Director GA "Strategic foundations are done for how we are going to internationalize in the future. Before it proceeded through friends and acquaintances, persons were found who have established shops around the world, but now we have a professional angle to it. Now it proceeds so that there are franchise consultants who search potential entrepreneurs for us and we do real target market chartings and market research." -Director GE

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# ARTICLE IV

**Temporality and firm de-internationalization: Three historical approaches.**

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Manuscript submitted for publication.

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