Sniazhana Sniazhko

Uncertainty Management of Integration Managers in MNCs during Post-Acquisition Integration

ACTA WASAENSIA 466

Vaasan yliopisto
UNIVERSITY OF VAASA

ACADEMIC DISSERTATION

To be presented, with the permission of the Board of the School of Management of the University of Vaasa, for public examination on the 12th of November, 2021, at noon.

Reviewers

Professor Annette Risberg
Copenhagen Business School
Department of Management, Society and Communication
Solbjerg Plads 3
DK-2000 Frederiksberg
DENMARK

Professor Satu Teerikangas
University of Turku, Turku School of Economics
Department of Management and Entrepreneurship
Management and Organization
FI-20014 Turun Yliopisto
FINLAND

Julkaisija
Vaasan yliopisto

Julkaisupäivämäärä
Marraskuu 2021

Tekijä(t)
Sniazhana Sniazhko

Julkaisun tyyppi
Artikkeliväitöskirja

ORCID tunniste

Julkaisusarjan nimi, osan numero
Acta Wasaensia, 466

Yhteystiedot
Vaasan yliopisto
Johtamisen akateeminen yksikkö
Henkilöstöjohtaminen
PL 700
FI-65101 VAASA

ISBN
978-952-476-980-8 (painettu)
978-952-476-981-5 (verkkoaineisto)
http://urn.fi/URN:ISBN:978-952-476-981-5

ISSN
0355-2667 (Acta Wasaensia 466, painettu)
2323-9123 (Acta Wasaensia 466, verkkoaineisto)

Sivumäärä	Kieli
244	englanti

Julkaisun nimike
Integraatiojohtajien epävarmuuden hallinta monikansallisissa yrityksissä hankinnan jälkeisen integraation aikana

Tiivistelmä
Vaikka olemassa oleva tutkimus auttaa ymmärtämään epävarmuutta ja epävarmuuden hallintaa monikansallisissa yrityksissä ja erityisesti yritysoston jälkeisessä integraatiossa, se lähestyy päätöksentekoa järkevästi suunniteltujen päätösten näkökulmasta, jossa epävarmuus poistetaan hallinnalla. Lisäksi epävarmuuden hallintaa on tarkasteltu pääasiassa organisaatiotasolla, jolloin vähätellään yksittäisten päätöksentekijöiden roolia. Näistä lähtökohdista käsin tässä väitöskirjassa tutkitaan, miten yksittäiset integraatiojohtajat hallitsevat epävarmuutta ja miten nämä havainnot ja epävarmuuden hallintamenetelmät vaikuttavat integraatioon liittyvään päätöksentekoon.
Tutkimuksen tavoitteet ovat kohteena kolmessa esseessä. Essee 1 on järjestelmällinen kirjallisuuskatsaus kansainvälisen liiketoiminnan alan kirjallisuudessa tutkituista epävarmuustyypeistä tehdystä olemassa olevasta tutkimuksesta ja se luo pohjaa molemmille empiirisille esseille. Essee 2 tarkastelee yritysoston jälkeistä integraatioprosessia keskittyen sellaisiin epävarmuustekijöihin, joita johtajat havaitsevat. Se tutkii syndikaattinäkökulmasta, miten he käsittelevät erilaisia jännitteitä epävarmuuden hallinnassa. Yhdistämällä merkityksiä luovan ja merkityksiä antavan näkökulman Essee 3 tarkastelee integraatiojohtajien toimintaa heidän tehdessään päätöksiä ryhmässä yritysoston jälkeisen integraation aikana.
Empiirinen aineisto käsittää perusteellisen laadullisen tapaustutkimuksen, jossa tarkastellaan kahden pohjoismaisen monikansallisen yrityksen välistä integraatiota. Tiedot perustuvat pääasiassa 20 osittain jäsenneltyyn haastatteluun 18 integraatiojohtajan kanssa.
Väitöskirja lisää kansainvälisen liiketoiminnan kirjallisuudessa ymmärrystämme siitä, miten monikansallisten yritysten päätöksentekijät yksilö- ja ryhmätasolla kokevat epävarmuuden ja valitsevat lähestymistavat sen hallintaan. Se tuo oman panoksensa myös kansainvälisiä yritysostoja ja -fuusioita käsittelevään kirjallisuuteen haastamalla vakiintuneet näkemykset hallittavuudesta yleisenä epävarmuuden hallintakeinona ja paljastamalla tapoja, joilla sekä ostavien että ostettujen yritysten integraation johtajat vaikuttavat päätöksentekoon yritysoston jälkeisen integraation aikana.

Asiasanat
epävarmuus, integraation johtajat, integraatio, päätöksenteko, yrityskauppa

Publisher
Vaasan yliopisto

Date of publication
November 2021

Author(s)
Sniazhana Sniazhko

Type of publication
Doctoral thesis by essays

ORCID identifier

Name and number of series
Acta Wasaensia, 466

Contact information
University of Vaasa
School of Management
Human Resource Management
P.O. Box 700
FI-65101 Vaasa
Finland

ISBN
978-952-476-980-8 (print)
978-952-476-981-5 (online)
http://urn.fi/URN:ISBN:978-952-476-981-5

ISSN
0355-2667 (Acta Wasaensia 466, print)
2323-9123 (Acta Wasaensia 466, online)

Number of pages
244

Language
English

Title of publication
Uncertainty Management of Integration Managers in MNCs during Post-Acquisition Integration

Abstract
While extant research contributes to our understanding about uncertainty and uncertainty management in MNCs, and more specifically in post-acquisition integration, it approaches decision-making from the viewpoint of rationally planned decisions where uncertainty is eliminated through control. Furthermore, uncertainty management has been examined predominantly at the organizational level, downplaying the role of individual decision-makers. Previous work has approached post-acquisition integration from the perspective of the buyer, positioning the target as a passive bystander. In light of this, this dissertation explores how individual integration managers perceive and manage uncertainty during post-acquisition integration and how these perceptions and uncertainty management methods influence integration-related decision-making.

The aims of the research are addressed in three essays. *Essay 1* is a systematic literature review of existing research on the kinds of uncertainty examined in the IB literature, and lays some of the groundwork for the two empirical essays. *Essay 2* examines the post-acquisition integration process with a focus on the kinds of uncertainty integration managers perceive. Drawing on the syndicate view, it explores how they deal with various tensions in uncertainty management. Incorporating a sensemaking and sensegiving perspective, *Essay 3* explores the activities of integration managers during post-acquisition integration as they make decisions in a team setting. The empirical data comprises an in-depth qualitative case study that examines the post-acquisition integration between two Nordic MNCs. The data is primarily based on 20 semi-structured interviews with 18 integration managers.

The dissertation makes a contribution to the IB literature by enhancing our understanding about how decision-makers at individual- and team-level in MNCs perceive uncertainty and select approaches to its management. It also contributes to the IM&A literature by challenging established views on controllability as a common means to manage uncertainty and revealing the ways integration managers from both acquiring and acquired firms influence decision-making during post-acquisition integration.

Keywords
uncertainty, integration managers, integration, decision-making, acquisition

ACKNOWLEDGEMENT

This doctoral thesis is a result of an amazing journey – scientific, geographic and journey of a personal growth. Constant presence and cunning of uncertainty, at least as a research subject, made the journey even more interesting and exciting, but also challenging in times. I would like to express my sincere gratitude to people who were providing a sense of certainty on this journey and with whom I had the pleasure to work.

I was fortunate to work with and receive detailed and pertinent feedback and necessary support from two fascinating professors, my advisors – Prof. Adam Smale and Associate Prof. Jennie Sumelius. I remain grateful to Adam for his generosity of shared ideas, his knowledge of the field and for patient reading and commenting on my work. He always supported my interest in this research, and that was significantly pushing me forward. My special and very warm thanks go to Jennie, whose extraordinary linguistic sensibilities as well as insightful and generous comments on my papers were coming at decisive moments. They were crucial to making loose ends fall into place and helped significantly to strengthen my arguments. I gained colossal experience while working with both Adam and Jennie.

I would also like to thank the preliminary examiners Professor Annette Risberg and Professor Satu Teerikangas for their effort and important comments, and Professor Satu Teerikangas for agreeing to serve as my doctoral defense opponent. I am looking forward to interactive and interesting defense session with her.

I wish to thank all of the academic colleagues from the different research communities and particularly NORD-IBers, who supported me. It has been a great privilege to collaborate with them.

I thank each and every one of my University of Vaasa colleagues (both former and present) with whom I was working during all these years. I want to particularly mention some of you who contributed to development of this dissertation the most. Professor Dr. Riitta Viitala, Associate Professor Dr. Niina Koivunen, Professor Dr. Vesa Suutari, Professor Dr. Liisa Mäkelä, Docent Dr. Maria Järlström, Associate Professor Dr. Rodrigo Rabetino, Assistant Professor Dr. Olivier Wurtz, Dr. Minnie Kontkanen, and Professor Dr. Jorma Larimo, thank you all for sharing your knowledge and academic skills with me.

Ausrine. We shared a lot of memorable moments in our doctorate journeys and whose help at the beginning of my doctoral studies has been crucial. Rumy, is a very dedicated and enthusiastic researcher whose creative thoughts and new perspectives challenge the status quo. I also enjoyed a good laugh that we shared. Dina, provided helpful advice and comments on how to make this thesis better. I enjoyed our writing exercises together.

I am thankful to Tiina Jokinen for always supporting me with the much-needed practical help.

Marko, Annika, Jukka, Susanna, Jenni, Anne-Maria, Anne, Karita, Suvi, Tuomas, Anni, Kati, Katja, Maria, Piia, Hilpi, Paula, Boo, Raja, Roger, Shuwei, Yekaterina, Jussi, Laura, Mireka, Agneska, Rodrigo, Tania, Marko, Valeria, Yassine, Jesse, Sanna, Susanna, Petra, Hannu, Shara, Man, Tamara, Tiina, Tahir, Pratik, Yi, Shaghayegh

All of you have always been a great team to work with!

This thesis would not have been possible without the generous financial support of Ella ja Georg Ehrnrooth Foundation, The Graduate School of the University of Vaasa, The Dr.h.c Marcus Wallenberg Foundation, Evald and Hilda Nissi Foundation, and Liikesivistysrahasto.

In addition, I would like to thank two anonymous case companies for granting me the unique access to the integration process. I warmly thank all the interviewees for their valuable time and effort that made my research possible.

My true friends whom I got to know in Vaasa and who were concerned the most about the quality of my social life. Assel, Vesla, Robert, Olga, Inga-Lill and Kurt, Riitta and Tero, Pirjo and Kale, Tom and Monika. You are the greatest treasure!

My warmest gratitude goes to my dear parents. Since early childhood, you taught me to appreciate knowledge as the best treasure one can ever possess. You have always supported me in all my interests and you never doubted me.

My dear husband, you have been a great mentor, soulmate and a friend. You were there for me any time I needed. Thank you for supporting me throughout the most difficult times of this research journey.

I dedicate this work to my dear children, Ivan and Daria Amelie, who is bringing joy and light into my life. You are a true blessing!

Contents

Figures

Tables

Abbreviations

MNC	Multinational Corporation
IB	International Business
IM&A	International Mergers and Acquisitions

Essays

[1] Sniazhko, S. (2019). Uncertainty in decision-making: A review of the international business literature. *Cogent Business & Management*, 6 (1). https://doi.org/10.1080/23311975.2019.1650692[1]

An earlier version of this paper has been presented as competitive paper at the 13th Vaasa IB Conference (University of Vaasa; August, 2015; Vaasa, Finland). At European International Business Academy (EIBA) Conference (December, 2015; Rio de Janeiro, Brazil) an earlier version of this paper received the Best Paper Award in the Track on Developments in IB Theory.

[2] Sniazhko, S. (under review in *European Management Journal*). Integration managers' approaches to uncertainty management in M&A.

An earlier version of this paper has been presented as competitive paper at European International Business Academy (EIBA) Conference (Poznan University of Economics and Business; December, 2018; Poznan, Poland).

[3] Sniazhko, S. Post-acquisition integration as a decision-making process: Individual-level sensegiving and team-level sensemaking. The paper is planned to be submitted to a special issue on M&A in *Long Range Planning* in August 2021.

An earlier version of this paper has been presented as interactive paper at European International Business Academy (EIBA) Conference (Poznan University of Economics and Business; December, 2018; Poznan, Poland). At European Academy of Management (EURAM) Conference (ISCTE-IUL; June, 2019; Lisbon, Portugal) an earlier version of this paper received the Best Paper Award in the Track on Mergers & Acquisitions.

[1] This is an accepted manuscript of an article published by Taylor & Francis in *Cogent Business & Management*. Reprinted with the kind permission of Taylor & Francis.

1 INTRODUCTION

"Suddenly, I'm working with a person I don't know at all and we should be making ground statement decisions on the new organization that you know you are going to be responsible for. You don't know how these people came up with these recommendations or what their interests are. And you also have to know what their role is supposed to be in the new organization. You have a lot of things taking place at the same time: the factual work, the work streams and you need to get something out of it. Then, you have a completely new team of people working for you. How do you establish trust in those situations and how much can you rely on people working for you [...] in order to make decisions [...] and how are you going to sell these decisions to your manager?"

-Excerpt from an interview with an integration manager

1.1 Background

As the introduction to this dissertation is being written, the world navigates through the COVID-19 pandemic and the wave of uncertainty it brings in its wake for the global economy, firms' cross-border operations, and individuals in these firms. Pandemic lockdown, as well as preceding environmental issues, economic and financial crises, all contribute to the distress of an unknown and uncertain future.

Although there are good reasons to suggest that the level of *uncertainty* has increased significantly over the past years, firms have always had to manage amidst uncertainty. This is especially true for multinational corporations (MNCs) that operate in foreign countries and are confronted with market imperfections, cross-border competition, and various political and economic instabilities. Among the most significant events that give rise to a number of uncertainties in MNCs are international mergers and acquisitions (IM&A). Although IM&A are frequent activities in today's business environment, they are often high-risk investments with significantly less than a 50% chance of success (Ashkenas & Francis, 2000; Bauer & Matzler, 2014; Galpin & Herndon, 2014). IM&A cause considerable anxiety for the workforce due to the uncertainties they entail in terms of possible layoffs, relocations, reassignments, and restructuring, which can result in heightened tensions and emotions, power and politics, as well as employee resistance to change.

While the intended value proposition of an IM&A is outlined in the plans preceding the deal, the realization of this value-added depends on how the *post-acquisition integration* process and its associated uncertainties are managed. Post-acquisition integration involves complex organizational and cultural changes, with all the company and employee-level uncertainties these entail. Furthermore, there can be a need for the two parties to withhold certain information and plans for legal reasons, for example associated with deal announcement protocol or negotiations with labor unions. This means that a certain level of uncertainty due to a lack of information is virtually guaranteed. Although each post-acquisition integration is unique, they are frequently fraught with over-expectations of generating rapid synergy gains, as well as pitfalls related to complex organizational change, high emotions and socio-psychological dynamics (Meynerts-Stiller & Rohloff, 2019).

Since IM&A can be very large in scale and scope, some firms employ the use of dedicated *integration managers*, whose purpose is to enable the post-acquisition process by speeding it up, creating a structure for it, forging social connections between the two organizations, and helping to generate short-term successes that produce business results (Ashkenas & Francis, 2000). They are also referred to as agents of change whose work can turn the IM&A into a successful deal or ruin it completely (Graebner, 2004; Meyer, 2006). Integration managers work in a challenging context where they must navigate between the visions of top management on the one hand, and expectations of employees in the acquiring and acquired organizations on the other. This dual role requires them to deal with uncertainty related to the integration decisions they are responsible for making, while also helping their subordinates manage their own uncertainties. In order to avoid joining the large group of IM&A failures, integration managers must successfully manage the uncertainties that IM&A inevitably create.

1.2 Research problem

Issues related to uncertainty and uncertainty management in MNCs have received a lot of attention in academic literature (Brouthers et al., 2008; Erramilli & D'Souza, 1995; Gaba et al., 2002; Lewis & Harvey, 2001; Liu et al., 2016; Oetzel & Oh, 2014; Santagelo & Meyer, 2011; Slangen & Tulder, 2009; Tseng & Lee, 2010). However, there is still relatively little understanding of individual decision-makers, their perceptions, and their management of uncertainty, particularly in the context of post-acquisition integration and the roles of integration managers (Balogun, 2003; Graebner et al., 2017; Meglio & Risberg, 2010). In the following, the main limitations of existing research in these areas are summarized.

Uncertainty and uncertainty management in international business. *Uncertainty* is a multidisciplinary concept that has received considerable research attention in many fields of science: psychology, physics, economics, finance, organizational studies and many others. Although these fields differ in their interpretations of the concept, they are similar in that the concept of uncertainty constitutes a base for the development of many theories. The topic of uncertainty has also attracted research attention in the field of international business (IB), where uncertainty is viewed as an inherent contextual factor that shapes the decision-making of MNCs and affects key issues like the speed of international expansion, internalization paths, entry mode choices, and level of commitment (Aharoni, 1966; Aharoni et al., 2011; Ahsan & Musteen, 2011; Johanson & Vahlne, 1977; Liesch et al., 2011). Uncertainty is frequently defined as the lack of knowledge about the future state of events (Knight, 1921), and considered to be rooted in a robust desire for security.

Since the concept of uncertainty is so widely used in management research in general (Miller, 1992), and since research in the IB field integrates insights from different organization theories and the strategic management literature to explain uncertainty-related issues (Burgelman, 1983; Cyert & March, 1963; March, 1991; Mintzberg, 1978), there are significant inconsistencies and confusion about how the concept of uncertainty is defined and used (Milliken, 1987). The variety of ways in which uncertainty has been defined and studied has contributed to a fragmented view of MNC behavior and the role of uncertainty in international decision-making. In addition, the lack of clear distinctions between different dimensions of uncertainty may result in a misleading representation of the MNC environment that, in turn, can lead to inaccurate conclusions about how the MNC operates under uncertainty (Aharoni et al., 2011; Devinney et al., 2005). Although most scholars agree that MNCs employ different uncertainty management approaches in their decision-making (Beckman et al., 2004; Burgers & Padgett, 2009; Ji & Dimitratos, 2013), what is meant by uncertainty and how it is measured differs from study to study.

Studies in the area of *uncertainty management* have focused on examining the interdependence between uncertainty and managerial processes to find ways of either reducing uncertainty or even benefiting from it. Existing studies offer financial and strategic risk management approaches (Miller, 1992). These approaches assume the rational actions of actors, meaning that they can influence and control the process, they can differentiate and choose between different alternative actions, and they can assign probabilities to various outcomes (Jaeger et al., 2001). Furthermore, these approaches assume that actors are knowledgeable, able to clearly identify the problem at hand, and have the necessary resources to implement the chosen actions (Ritchie & Marshall, 1993). Recent studies of risk management processes, however, show that decision-makers in MNCs perceive the application of well-established risk management approaches as ineffective for a number of reasons. First, when an unexpected uncertainty emerges, the risk management approach is insufficient in providing guidance as to how decision-makers in MNC should act and manage uncertainty (Kutsch & Hall, 2005). Second, decision-makers might experience a cognitive and emotional overload of perceived uncertainties that might impact their behavior in many ways (Atkinson et al., 2006). Lastly, decision-making under uncertainty might be accompanied by complex and varied dynamics associated with performing any given behavior (Jaafari, 2001).

In light of this, there is a need in the IB literature to advance existing research by increasing our understanding of the following two subjects. First, in order to address inconsistencies and confusion about how the concept of uncertainty is defined and used, we need a more systematic and parsimonious conceptualization of the different dimensions of uncertainty, and a deeper understanding about different kinds of under-researched uncertainty. Second, to expand our understanding about how MNCs manage uncertainty, we need to examine how decision-makers at the individual- and team-level in MNCs choose between different uncertainty management approaches.

Uncertainty management in post-acquisition integration. M&A can be categorized based on the type of *post-acquisition integration* approach (Haspeslagh & Jemison, 1991). The post-acquisition integration approach determines the level of integration and varies between wholly independent and fully integrated. It predefines how the relationship between the buying and acquired firms unfolds during the post-acquisition integration phase and in the future (Lees, 2003). This dissertation focuses on post-acquisition integration that is more complementary than overlapping and where a significant level of integration is planned and needed in order to realize the goals of the acquisition. This type of post-acquisition integration process is often equally disordered and uncertain for the buyer and target organization (Haspeslagh & Jemison, 1991). It is also suggested that organizations experience their greatest need to conduct large-scale changes immediately after acquisition (Angwin, 2004; Ashkenas & Francis, 2000; Haspeslagh & Jemison, 1991) since the people involved in the process expect changes to begin immediately after the deal is closed. These post-acquisition integrations are always critical because two entities that used to be separate now have to follow the same mission, strategy, and mentality. Although it is believed that every integration is unique, various uncertainties in post-acquisition integration tend to occur as a result of conflicting goals and strategies, poor communication, conflicts of interest, disparate cultures and differences in management style (Galpin & Herndon, 2014; Meynerts-Stiller & Rohloff, 2019; Vaara, 2003).

In the post-acquisition integration literature, control, interpreted as planned and calculated decisions, is recognized as one of the most common means for managing uncertainty. For the buyer, establishing control is a central concern in the post-acquisition integration phase (Shrivastava, 1986; Bijlsma-Frankema, 2004). Nevertheless, a number of studies have questioned the ability of management to establish control (e.g., Buono & Bowditch, 1989), arguing that the complexity of the post-acquisition integration process extends beyond the managerial scope of control and calls for emergent rather than planned actions. There are a number of studies that do not subscribe to the notion of post-acquisition integration being a controllable process, raising awareness about such issues as politics, ambiguities, merger syndrome and emotions (e.g., Hassett & Nummela, 2018; Marks & Mirvis, 1986; Risberg, 2001, 2003; Vaara, 2003). At the same time, the dynamic nature of the process suggests that it is difficult to estimate and prevent emerging uncertainties, tensions and stresses that have a disruptive impact on organizational processes. Furthermore, studies emphasize the importance of balance between different kinds of control mechanisms, highlighting the significance of more flexible uncertainty management methods such as, for example, commitment and trust-based rationality (Lubatkin et al., 1998; Larsson & Lubatkin, 2001; Bijlsma-Frankema, 2004; Puranam et al, 2006).

Thus, to address the limitations of the established views on controllability in the post-acquisition integration process, there is a need for theory and research to accommodate the complex and dynamic nature of uncertainty management. This should include both the variety of approaches to uncertainty reduction and uncertainty coping, and should shed light on the whole spectrum of integration managers' uncertainty management methods in post-acquisition integration.

Role of integration managers in IM&A. Several existing studies argue that problems associated with post-acquisition integration can be managed through the use of *integration managers* who are defined as agents of change and who have the relevant information at hand to control, make and rationally implement post-acquisition integration plans (Brannen & Peterson, 2009; Child et al., 2001; Lubatkin et al., 1998; Teerikangas et al., 2011). Many firms allocate resources and designate full-time integration managers or teams to execute integration activities. Some firms choose not to have full-time integration teams, but instead relieve mid- to upper-level managers of their customary tasks for six months to a year to help bring the two integrating firms together (Ashkenas & Francis, 2000). The latter is the type of integration managers in focus in this dissertation.

Although top management may view integration managers as simply process coordinators or project managers, they can and sometimes do play a far more pivotal role. Integration managers represent a bridge between top management and employees of the integrating firms. They help the integration succeed by keeping everyone focused on the issues that have the highest potential in terms of creating value, and by keeping up the necessary momentum in integration activities (Ashkenas & Francis, 2000). Hence, integration managers can play an important role in post-acquisition integration, occupying a boundary spanning role between top management and employees (Barner-Rasmussen et al., 2014; Mäkelä et al., 2019). Their role is important because integration managers have been shown to affect the outcomes of the integration in either positive or negative ways (Meyer, 2006; Teerikangas et al., 2011). In addition, and more importantly in the context of this dissertation, they can be characterized as having roles in which they face high levels of uncertainty.

A number of practitioner and academic studies have illustrated that establishing control in post-acquisition is problematic, and that integration managers often cannot control their change processes (Shimizu et al., 2004; Streatfield, 2001; Vaara, 2003). The challenging context they work in is accompanied by 'merger syndrome', which is characterized by employees' reactions to the likelihood of change, including stress and uncertainty that affect their perceptions, interpersonal relationships and the dynamics of the integration itself (Marks & Mirvis, 2010). Their roles require resolving uncertainties related to the integration decisions that they make, but also helping others with their uncertainties. Furthermore, they are the ones who make sense of the uncertainties and create meaning of the integration to enable actions. As a result, integration managers can be viewed as very important in managing tensions in decision-making, and yet we know little about integration managers from the buying firm, and even less about the role of integration managers in the acquired organizations regarding how they make sense of uncertainties they face and the methods they use to manage these uncertainties (Graebner, 2004; Monin et al., 2013). This is problematic considering that their role as change agents is critical for managing change and supporting employees through an important and disruptive transaction such as an IM&A (Finkelstein & Hambrick, 1996; Schweiger & Goulet, 2000; Teerikangas et al., 2011).

Integration managers are important but under-researched agents of change in the post-acquisition integration process who are capable of significantly *influencing the course of integration events (Vaara, 2003; Meyer, 2006; Teerikangas et al., 2011). Based on our limited knowledge of the roles of integration managers in IM&A, there is a need to advance research in the following two ways: first, to explore the rationale that drives integration managers' behavior in decision-making in post-acquisition integration and, second, to examine how individual integration managers influence decision-making in an integration team setting during post-acquisition integration. In particular, there is a need to examine how integration managers – from both the acquiring and acquired firms – make sense of the goals and decisions that were created by the executives of the integrating firms.*

1.3 Research questions

While extant research has contributed to our understanding about uncertainty and uncertainty management in MNCs, and more specifically in post-acquisition integration, this research tends to approach decision-making in organizations from the viewpoint of rationally planned decisions where uncertainty is eliminated primarily through control. Furthermore, uncertainty and uncertainty management have been examined predominantly from the organizational-level perspective, largely neglecting the role of individual decision-makers and the way they perceive and manage uncertainty. And lastly, previous work has approached post-acquisition integration from the perspective of the buyer, while positioning the target as a passive bystander.

In light of the above, the dissertation examines the key three research questions, which correspond with the three essays that comprise this compilation-based dissertation. The research questions are as follows:

(1) What kinds of uncertainty do integration managers perceive in their post-acquisition integration decision-making?

(2) How do integration managers balance the conflicting demands of coping with uncertainty and reducing uncertainty in the post-acquisition integration process?

(3) How do integration managers, including those from the acquired firm, influence decisions in integration teams?

This dissertation addresses these research questions through three sole-authored essays. *Essay 1* consists of a published systematic literature review of existing research on the kinds of uncertainty examined in the IB literature and lays some of the groundwork for the following two empirical essays. *Essay 2* examines the post-acquisition integration process with a focus on the kinds of uncertainty integration managers perceive. Drawing on the syndicate view that acknowledges that integration managers have multidimensional interests (not only self-interests), it explores how they deal with various tensions in uncertainty management. *Essay 3* explores the activities of integration managers during the post-acquisition integration phase as they make decisions in teams. Incorporating sensemaking and sensegiving perspectives, the study explores how individual integration managers and integration teams interpret the decisions of the integrating firms' executive managers. Table 1 presents an overview of the three essays.

Table 1. Overview of the essays in the dissertation

	Essay 1	**Essay 2**	**Essay 3**
Title	*Uncertainty in decision-making: A review of the international business literature*	*Integration managers' approaches to uncertainty management in IM&A*	*Post-acquisition integration as a decision-making process: Individual-level sensegiving and team-level sensemaking*
Research question(s) addressed	Question (1)	Questions (1), (2), (3)	Questions (2), (3)
Theoretical perspective	Contingency-based view	Syndicate view	Sensemaking and sensegiving
Research design	Conceptual: systematic literature review	Empirical: single, in-depth, qualitative case study	Empirical: single, in-depth, qualitative case study

1.4 Positioning and intended contributions

1.4.1 Positioning of the dissertation

Although uncertainty has been studied extensively in IB, it has primarily been examined at the MNC level, drawing on theories already familiar to this body of work (e.g., contingency theory, institutional theory). In order to integrate knowledge from more diverse areas of research, and in order to identify theories that better accommodate the individual and team level of analysis, this dissertation draws on theories and perspectives from neighboring fields. More specifically, this dissertation lies at the intersections between different traditions and different bodies of literature – principally International Business, Organizational Studies and Organizational Behavior – which is drawn upon in making scientific contributions primarily to the International Business and IM&A literature. I draw on theory and research in organizational studies to examine uncertainty, uncertainty management and post-acquisition integration in M&A. Regarding theory and research on individual-level decision-making and team dynamics, I integrate existing work from the field of organizational behavior. Concerning uncertainty in MNC decision-making and post-acquisition integration in the international M&A context, I draw upon the IB literature. The positioning of the research is illustrated in Figure 1 below.

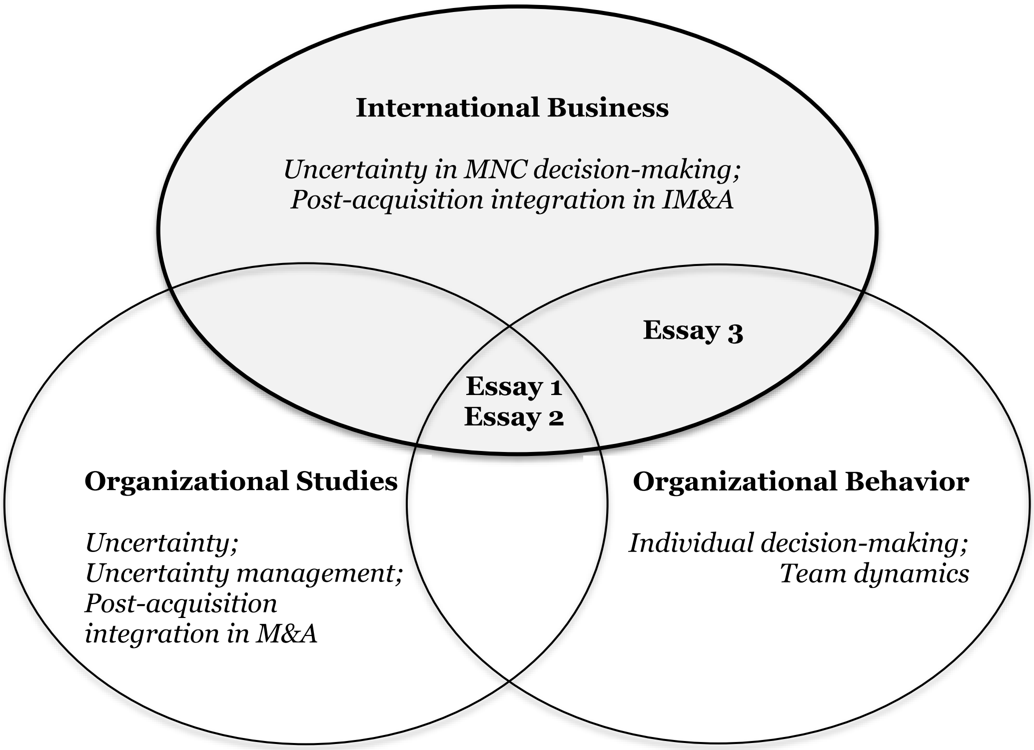

Figure 1. Positioning of the research

1.4.2 Intended scientific contributions

This dissertation intends to contribute to the IB literature in the following ways:

First, although the phenomenon of uncertainty has been widely researched in IB studies, there are significant limitations in our understanding about uncertainty and how it shapes MNC decision-making (Delios & Henisz, 2003a; Di Gregorio, 2005; Milliken, 1987). This dissertation offers a more in-depth examination of different kinds of uncertainty that emerge in MNC decision-making processes. In particular, it addresses the inconsistent conceptualization and measurement of uncertainty by organizing and synthesizing the dimensions of uncertainty into a parsimonious integrative framework, as well as proposing a future research agenda. Being more consistent in the use of concepts and measurements of uncertainty helps to advance the field and add significantly to the predictive validity of theoretical models (Delios & Henisz, 2003b).

Second, existing IB literature conceptualizes and measures uncertainty primarily from the MNC perspective (Ji & Dimitratos, 2013), while neglecting the role of individual decision-makers. This dissertation addresses this limitation by identifying the types of uncertainty that individual managers perceive and the kinds of uncertainty management approaches they choose while making their decisions in the context of post-acquisition integration in IM&A. By focusing on individual decision-makers as idiosyncratic actors in collective decision-making as the unit of analysis, and drawing on the syndicate view that acknowledges that integration managers possess multidimensional interests (not only self-interests), this dissertation contributes to the debate about control as the predominant mechanism of uncertainty management in the post-acquisition integration process. It also serves to outline other methods of uncertainty management that are oriented towards a deeper understanding of the phenomenon of uncertainty rather than its mere minimization.

Third, the existing IB literature, the IM&A literature in particular, does not provide us with a detailed, empirical understanding about what integration managers do during post-acquisition integration (Steigenberger, 2016). Viewing a key role of integration managers as being concerned with managing tensions in decision-making, this dissertation sheds light on how integration managers make sense of and give meaning to integration goals when making decisions, i.e. how they react to these goals and how they communicate about the goals to others in the integration team. Furthermore, integration managers from the acquired firm are a group of managers we know very little about (Graebner, 2004) in terms of the way they manage uncertainties and decision-making processes they are involved in during the post-acquisition integration. Hence, the findings of this dissertation challenge existing assumptions in the literature – integration managers from the acquired firm can exert significant influence over the integration process as opposed to being passive or submissive ‘recipients’.

1.5 Scope of the dissertation

The dissertation involved a number of choices about what is and is not included within the scope of the research. The main issues are summarized below.

Decisions vs. decision-making. The scope of this dissertation is limited to the factors that help integration managers to make their integration-related decisions, and to the processes that focus on how the decision is being made. In this dissertation, decision-making is, therefore, perceived as the integration managers' operational environment where they manage uncertainty. This dissertation explores how individual integration managers manage uncertainty when they are forced to make a decision under uncertainty and then to reflect on it. This dissertation does not look at the decisions per se, nor does it examine the quality of the decisions' made, or the impact of these decisions on the effectiveness of the post-acquisition integration process.

Type of acquisition. The empirical case is limited to a symbiotic acquisition and the observations may thus not extend to other kinds of acquisitions or mergers such as, for example, hostile acquisitions. As defined by the executives of the integrating companies, the integration was not done for cost cutting purposes, rather the intention was to create transformation through synergy and complementarity of two strong players in the industry. Moreover, although publicly announced as a merger, integration managers from both acquiring and acquired firms viewed it as an acquisition.

Country context. Although the case in question is an international M&A, the two companies are based in culturally and physically proximate countries[2]. Whilst there is an interesting debate about the impact of national cultural distance – cultural differences versus the paradox of cultural similarity (Vaara, 2003), and the effects of national versus organizational cultures (Gerhart, 2008) – the cultural similarity of these two countries may limit the generalizability to other IM&A settings, and may have influenced the extent to which country-based differences appeared in the data. In order to preserve the anonymity of the case firms and the participants, the researcher could not delve into the details of the country setting such as national culture and language.

[2] The countries are not revealed in order to protect the anonymity of the companies and interviewees.

1.6 Structure of the dissertation

The dissertation is structured as follows. *Chapter one* introduces the research background, identifies existing limitations in the current literature, formulates research questions, illustrates the positioning of the study, discusses its key theoretical contributions, and outlines scope of the research. *Chapter two* discusses the theoretical foundations of the research with a particular focus on the IB literature, but also incorporating key insights from the fields of organizational studies and organizational behavior. *Chapter three* presents and justifies the research methodology, explains the data collection and analysis techniques used, and evaluates the research rigor of the empirical case study. *Chapter four* summarizes the key contributions of the three essays. Finally, *Chapter five* presents and discusses the main conclusions across the three essays, discusses their practical implications, outlines the key limitations, and offers future research directions.

2 LITERATURE REVIEW

This dissertation is positioned in and contributes primarily to IB research, but also integrates theory and concepts from organizational studies and organizational behavior. Essay 1 of the dissertation conducts a systematic literature review on what is known about uncertainty in MNC decision-making. Hence, the in-depth findings of the literature review on this topic are discussed in Essay 1, while section 2.2 below provides a short conceptual overview. The remaining sections in this chapter (2.1., 2.3., 2.4., and 2.5.) are focused on those key concepts and empirical research in the literature that are relevant to the dissertation, but not discussed in the review presented in Essay 1. The structure of this chapter is based on an elaboration of the themes presented in Figure 1.

2.1 Uncertainty and uncertainty management

The field of organizational studies offers a variety of perspectives about the nature of uncertainty, the ways in which it affects people in organizations, and various managerial approaches to managing it. In relation to this, two key debates are central in the organizational studies literature: (1) the significance of objective versus subjective concepts of uncertainty; and (2) whether organizations and the decision-makers in them adapt to environmental uncertainty or actively shape this environment (Grote, 2009; Jauch & Kraft, 1986). The key potential contribution of this literature to IB is that it explicates the concepts of uncertainty and uncertainty management in detail.

2.1.1 Uncertainty

Traditionally, uncertainty has been perceived as a fundamental problem for decision-makers in organizations (Thompson, 1967). It has been one of the most important concepts in theories of organization that evaluates the interrelations between organizations and their environments. Uncertainty does not simply impose itself on organizations from the environment, but rather it is socially constructed (Smithson, 2009). Organizations differ considerably in how uncertainty is conceived and expressed, and so do individuals within these organizations. Hence, it does not significantly matter what generic definition this dissertation chooses for uncertainty, considering the countless number of definitions that exist, as long as the chosen definition for uncertainty recognizes this point.

To emphasize the importance of subjectivity in the way uncertainty is perceived in MNCs' decision-making, this dissertation adopts the Knightian definition of uncertainty, which tends to be the most frequently used in the field of organizational studies (Alvarez et al., 2018). Knight (1921) defines uncertainty as a perceptual phenomenon that exists in conjunction with unique, very complex events or contexts, which cannot be assessed or predicted in advance by any logical means. In addition, this definition also explicitly contrasts uncertainty with risk, where risk refers to events that are subject to known or knowable probability distribution (Knight, 1921). Although, existing research does not make a straightforward distinction between uncertainty and risk, this dissertation differentiates these two concepts because of the apparent difference in their nature. Risk is known, calculable and foreseeable, thus it can be eliminated or avoided. Uncertainty, on the other hand, is not subject to calculations and cannot be eliminated completely, but it can be acted upon.

Early organization theorists such as Simon (1947, 1972), Cyert and March (1963), Lawrence and Lorsch (1967), Thompson (1967), and Barnard (1968) directed their interest toward the role of uncertainty in business and, in particular, they aimed to understand how uncertainty affects organizational structure and decision-making rules. Organizational behavior scholars, on the other hand, were more interested in understanding uncertainty from the individual-level perspective, in particular how it affects individual decision-making, team dynamics, and behavioral responses (Dowley & Slocum, 1975; Van de Bos et al., 1998). Unlike the model of rational decision-making suggests, Kahneman and Tversky (1979) found that individual decision-makers apply heuristics and biases while making decisions, precisely because they are aware that they often operate under conditions of uncertainty, not risk. Further, managers may experience different kinds of uncertainty as they seek to understand and respond to changes in an organization's environment (Milliken, 1987). The nature of these uncertainties can be very different, and failure of managers to understand and distinguish between different uncertainties lead to numerous conflicting research findings (Ashill & Jobber, 2010; Doty et al., 2006).

In decision-making processes, uncertainty can emerge due to incomplete information, inadequate understanding of available information, or undifferentiated alternatives (Lipshitz & Strauss, 1997). While incomplete information is a factor that can be determined objectively, inadequate understanding and undifferentiated alternatives imply an interaction between the type of a decision to be made, the environment in which decision is to be made and, most importantly, the decision-maker (Sitkin & Pablo, 1992). Inadequate understanding can result from either lack of information or its excess. Even more, it can emerge from difficulty in its interpretation because several conflicting meanings exist (Weick, 1979). Undifferentiated alternatives, on the other hand, are linked to the goals and values of the decision-maker as well as of the organization in whose interest the decision-maker is expected to act (Grote, 2009).

Along with different sources of uncertainty, the organizational studies literature also distinguishes two groups of organizational actors that are affected by uncertainty: high-level executives in their role as strategic decision-makers, and operative personnel making day-to-day decisions (Grote, 2009). Although the basic definitions of uncertainty are quite similar, their application to different actors vary significantly (Pfeffer & Salancik, 1978; Wall et al., 2002). To understand how uncertainty affects decision-making in organizations, several kinds of actors should be considered (Grote, 2009). For example, top management is concerned with decisions such as what company to buy or which strategic alliance to build. Middle management mediates between strategic and operational decisions to contribute to their faster execution. Hence, consideration of several actors is important since relevant sources of uncertainties will differ significantly depending on the group of actors and the type of decisions expected from them.

In terms of the debate on objective versus subjective accounts of uncertainty, the significance of decision-makers in organizations and their diversity in terms of perceived uncertainties promotes arguments in favor of subjective accounts of uncertainty. Such aspects as inadequate understanding of information or ambiguous information need to be assessed and identified with reference to the affected decision-makers (Duncan, 1972; Lawrence & Lorsch, 1967). Although a number of studies argue that both objective and subjective accounts of uncertainty matter equally, and should be assessed within a single study (e.g., Bourgeois, 1985), they also show confusing results that are difficult to interpret due to the construction of uncertainty measures. *Building on this, a key insight from organizational studies is that the conceptual distinction between different types of uncertainty matters for the research results and that consideration of the individual decision-makers' perceptions of uncertainty contributes to a more nuanced understanding about organizational decision-making.*

2.1.2 Uncertainty management

The second debate in the organizational studies literature examines the relationship between organizations and their environment, and how organizations can shape their environment. Existing research commonly defines uncertainty management as identification of the ways in which the negative consequences of uncertainties can be reduced to affect organizational performance (Lorenzi et al., 1981). Fewer studies define uncertainty management as an opportunity creation process (McPhee & Zaug, 2001) through which organizations can actively shape their environment. Thus, a starting point in this dissertation is that uncertainty management is a process of treating uncertainty through either of two key contrasting methods – uncertainty reduction or uncertainty coping. Although there has been some overlap in the use of the concepts, the dissertation makes an effort to define and discuss various approaches that comprise these two uncertainty management methods.

This dissertation integrates generic principles for managing uncertainty developed in organizational studies into the IB literature. This serves to aid the choice between reducing or coping with uncertainty to reach particular organizational goals. These generic principles depend on various contingencies and most commonly, on the amount and type of uncertainty with which decision-makers are faced (Grote, 2009). No particular theory of the firm was selected as a guiding principle. Instead, elements of different theoretical perspectives were integrated as long as they related to the management of uncertainty. Agency theory and, in particular, its alternative known as the *syndicate view*, identifies certain problems related to the transfer of uncertainty between principal and agent and re-evaluates the decision-makers' motives for selecting particular uncertainty management methods (as described in more detail in Essay 2).

From the syndicate perspective, managers are partners with owners, and each contributes unique and valuable resources in the pursuit of collective success (Dukerich et al., 2002). Key means of decision-making are primarily negotiation and collaboration to achieve consensus (Graebner & Eisenhardt, 2004). The separation of agency theory and syndicate view as two distinct theoretical views is important because they differ in terms of the motives ascribed to the managers when making decisions. Agency theory assumes that managers make decisions primarily out of self-interest. The syndicate view assumes multi-dimensional motives such as: self-interest (including financial gain, achievement, and reputation); collective interest (including the success of the company); and altruistic interest (including employee welfare (Graebner & Eisenhardt, 2004)).

Furthermore, it is essential to understand that organizations do not simply react to uncertain environments or shape these environments, but they rather enact their environments through the process of interpretation (Brown, 2000; Martins, 2005; Weick, 1979). Enactment can be viewed as processes of sensemaking, which is literally making sense of issues and events through placing them in a particular framework and deriving their meaning from that (Maitlis & Christianson, 2014; Weick, 1995). Environments, and uncertainties in them are socially constructed based on the decision-makers' subjective preconceptions that are used to make sense of ambiguous information (Berger & Luckmann, 1967). Meaning that derives from this sensemaking process shapes the behavior of a decision-maker. It is through these sensemaking and enactment processes decision-makers can either improve their own conditions or generate problems (Weick, 1979). Hence, sensemaking is critical in the context of high uncertainty when incomplete and ambiguous information requires interpretation of whether an emerged uncertainty represents a threat or an opportunity and to develop a ground for actions to reduce, to cope or to balance uncertainty management methods (Grote, 2009; Lipshitz & Strauss, 1997) (as described in more detail in Essay 3).

2.2 Uncertainty in MNC decision-making

At the heart of the traditional approach to decision-making in IB lies the assumption that decision-makers in MNCs are able to predict alternatives for the future development of their business, leading them to underestimate uncertainty (Buckley et al., 2007). Underestimating uncertainty might lead to decisions that neither protect an MNC from the threat nor take advantage of the emerged opportunities that uncertainty may provide. Making effective decisions under uncertainty requires decision-makers to have a clear understanding of the type of uncertainty that influences their decision-making process (Miller, 1992). Nevertheless, a proper understanding of the types of uncertainty that decision-makers in MNCs perceive, and an evaluation of the effectiveness of the chosen uncertainty management methods have proven to be problematic in the IB field for a number of reasons.

In IB, as well as in other branches of management studies, the understanding of uncertainty is quite commonly defined in relation to risk, and at times even used interchangeably with it (Alvarez & Barney, 2005; Sniazhko, 2019). In addition, there is evidence that academics and practitioners conceptualize uncertainty in different ways (Lipshitz & Strauss, 1997), making practitioners less likely to apply uncertainty management models developed by academics (Huber et al., 1996). Moreover, managers and practitioners hold widely divergent views on the management of uncertainty and risk in various decisions, with some taking a more analytical approach and control over the situation, while others being more opportunity driven and acting based on the emerging situation (Alessandri et al., 2004). Similarly, IB scholars have developed explanations of how MNCs make decisions under uncertainty and risk, integrating various theoretical perspectives, which has resulted in a fragmented and even contradictory understanding of the subject (Lipshitz & Strauss, 1997; Sniazhko, 2019).

The IB literature has also generally tended to focus more on the firm-level perspective, and on assessments of uncertainty following the economics-based behavioral theory of the firm (Cyert & March, 1963), while the focus on individual perceptions of uncertainty have remained limited (e.g., Hodgkinson et al., 2016; Makhija & Stewart, 2002). This is problematic since perceptions of individuals in the same MNC, for instance regarding the external environment and foreign market situations, are likely to differ. The path from an individual perception of uncertainty to the construction of a firm-level perception is not necessarily a straightforward one (Miller, 2007). Quite commonly, individual decision-makers' perceptions tend to be filtered by others within an MNC, and common perceptions of uncertainty and its management emerge. Nevertheless, individual perception remains the key mediator of the meaning and significance of the information about different markets, political and cultural environments (Lipshitz & Strauss, 1997).

2.3 Post-acquisition integration in M&A

M&A have been used as a dual concept to describe both mergers and acquisitions. Nevertheless, in practice these two concepts differ. A merger refers to companies that come together to combine and share resources to achieve common goals (Sudarsanam, 1995), and the word is used synonymously with integration. Mergers are rare, whereas acquisitions take place more frequently. An acquisition is defined as the acquirement of one entire company by another company or the acquirement of part of a business from an ongoing organization (Capron, 1999). This research follows the custom of the literature and the colloquial language of M&A and uses the terms M&A to refer to an acquisition. In this dissertation, the acquired firm is referred to as 'acquired firm' and the acquirer is referred to as 'buying firm'.

An acquisition is typically represented as one consistent process, with a step-by-step logical chain of events (McSweeney & Happonen, 2012). The literature delineates this process into phases: pre-acquisition search, financial evaluation and negotiations, deal making and integration, and post-acquisition integration (Galpin & Herndon, 2014). Each phase of the acquisition process contains a number of elements, the management of which are critical for the outcome of the acquisition. In practice, however, acquisitions continue to pose tremendous challenges and, in particular, at the post-acquisition integration stage, which is highly critical for the success of most acquisitions (Brueller et al., 2016). In terms of the working definition for post-acquisition integration, this dissertation adopts the most commonly used one where post-acquisition integration is defined as a process of making changes in the functional activity arrangements, organizational structures and systems, and cultures of two organizations to facilitate their consolidation into a functioning whole (Pablo, 1994). In addition, this dissertation clarifies that post-acquisition integration is a process that lasts from the closing of the acquisition deal to a point in time when all integrative processes have been completed as defined in the integration plans.

Given the interdisciplinary research area, studies from different fields have investigated mergers and acquisitions and, in particular, their post-acquisition integration process from different angles and perspectives where quite often overly rationalistic view of the post-acquisition integration process is promoted (e.g., Bijlsma-Frankema, 2004; Buono & Bowditch, 1989). Unlike mainstream research, a number of organizational studies with alternative viewpoints take a more critical perspective on the mainstream research and portray post-acquisition integration as more uncertain and less controllable process (e.g., Angwin & Vaara, 2005; Vaara, 2003; Teerikangas & Very, 2006). This dissertation directs its focus to the organizational studies literature that challenges the traditional understanding of post-acquisition integration as a controllable process in two major ways: (1) by reviewing different uncertainties that emerge during post-acquisition integration and (2) by distinguishing different roles that integration managers might play while managing these uncertainties in post-acquisition integration. *Building on this, the key aspect taken from organizational studies into the IB literature is the discussion about different types of uncertainties and the role of integration managers in managing these uncertainties during post-acquisition integration.*

2.3.1 Uncertainties during post-acquisition integration

Uncertainty is one of the most commonly reported psychological states in the context of organizational change. The effects of organizational change are very tangible during mergers and acquisitions. The literature on M&A illustrates that acquisitions have a great effect on managers and employees, particularly during post-acquisition integration (Haspeslagh & Jemison, 1991). In the M&A context, uncertainty as a reaction to the organization change has been studied via the following terminology: anxiety, ambiguity, merger syndrome, and uncertainty (Buono & Bowditch, 1989; Marks & Mirvis, 1985; Risberg, 1997, 1999; Somers & Bird, 1990).

The studies show that anxiety and ambiguity might emerge among employees in the post-acquisition integration as a result of the top management miscommunication (Austin, 1970). It is common among top management in buying firms to tell the employees of the acquired firm that everything will remain the same. The intention of these statements is to prevent worries and anxiety among the employees, but the effect is often the opposite. Since the employees expect the top management to reveal their intentions during the post-acquisition integration, promises that nothing will change force employees to believe that the management have something to hide. Such behavior from the top management could threaten their credibility among the employees and could lead to increased anxiety and ambiguity (Buono & Bowditch, 1989).

Although post-acquisition integration is a necessary phase of any M&A, certain organizational studies acknowledge that it has negative effects on employees (Schriber, 2012). It is assumed that the pervasiveness of human issues is unavoidable and most of these issues already surface in the early stages of post-acquisition integration (Buono & Bowditch, 1989). After the acquisition announcement, employees might have stress and anxiety about potential termination of employment, the need to relocate, the values of the new organization, or the kinds of transitions the organization will go through (Buono & Bowditch, 1989; Cartwright & Cooper, 1990; Sinkovics et al., 2011). The combination of these anxieties and ambiguities may affect perceptions and judgements, interpersonal relationships and the dynamics of integration itself (Marks & Mirvis, 1997; Risberg, 1997, 1999). Moreover, existing research identifies five major employee concerns in M&A processes that include loss of identity, lack of information, survival as an obsession, loss of talent and family repercussions (Schweiger et al., 1987).

Furthermore, a number of studies explore merger syndrome that often appears in post-acquisition integration and may potentially lead to poor financial and operational results (Marks & Mirvis, 1997). In particular, the research looks at employees' reactions to the changes that follow acquisition that can be revealed through their resistance to change, and employee expectations, stress, turnover, retention and the role of communication to voice the effects of the acquisition (e.g., Buono & Bowditch, 1989; Mirvis & Marks, 1992; Aguilera & Dencker, 2004; Raukko, 2009).

Last, but not least, the term uncertainty has also been researched in the M&A context. Schweiger and DeNisi (1991) list 21 sources of uncertainty that follow an M&A, including uncertainty related to lay-offs, pay cut, promotion opportunities, and changes to the culture of the organization. During post-acquisition integration, employees may experience uncertainty about the nature and form of the integrating organization, impact of the integration on their work and the likely changes to the job role (Buono & Bowditch, 1989; DiFonzo & Bordia, 1998). In this organizational restructuring, employees might also feel uncertain about the changing priorities of the organization. Hence, this wide variety of uncertainties poses a challenge to the smoothness and predictability of the post-acquisition integration (Bordia et al., 2004).

Ivancevich, Schweiger, and Power (1987) discuss different uncertainties that affect the organizational members. They point out uncertainty that relates to the acquisition, an event over which the employees have little control over. They also highlight that employees perceive an uncertainty about their future jobs and work situation. Furthermore, Ivancevich et al. (1987) state that employees cognitively interpret an acquisition, meaning that perceptions of what is happening during the acquisition differ from person to person. Some employees may perceive the acquisition as a threat while others may see it as an opportunity.

While the literature within organizational studies also discusses how to address various anxieties and ambiguities, merger syndrome, and uncertainties during integration, this brief overview of various types of reactions illustrates that the post-acquisition integration process is far from being controllable and predictable. Both managers and employees face different uncertainties during the post-acquisition integration. The ways these uncertainties are perceived and addressed might have an impact on the final outcome of the acquisition. Hence, understanding the concept of uncertainty in the M&A context becomes particularly important in understanding how to make acquisitions successful. Furthermore, uncertainty in the M&A context has been perceived as a threat or an obstacle that cause problems to the acquisition outcome. Because uncertainty is perceived as something negative, different views and interpretations of the uncertainty are not always acknowledged. Instead, one could view it as something positive, representing diversity and heterogeneity of opportunities in the organization (Risberg, 1999; 2001; 2003). Hence, existing literature would benefit from understanding how different employees and, in particular, managers leading the integration experience uncertainties during the post-acquisition integration.

2.3.2 Integration managers during post-acquisition integration

A wide spectrum of literature, being it a consultancy report or an article in a scientific journal, recognizes the role of integration managers as being critical during post-acquisition integration (Ashkenas, 2012; Ashkenas & Francis, 2000; Shelton, 2003). However, the existing literature on integration managers and integration teams suffer from being mainly conceptual, and rarely the role of integration managers and integration teams has been the focus of rigorous empirical research (Galpin & Herndon, 2014; Meynerts-Stiller & Rohloff, 2019). Only a handful of empirical studies explore the role of integration managers (Ashkenas et al., 1998; Teerikangas & Birollo, 2018; Teerikangas et al., 2011), while research on integration managers in IM&A is called for (Graebner et al., 2017; Meglio & Risberg, 2010; Sarala et al., 2019).

Integration managers are often perceived as leaders of the integration team who are not only the on-site contact for the transition process, but also the primary liaison between the two companies with central oversight, coordination, and control of the integration (Daniel, 1999). They are appointed to oversee the acquisition from the early announcement stage through the post-acquisition integration stage to ensure continuity of information and direction (Schweiger, 2002). Without genuine involvement of the integration managers, other employees are likely to refrain from fully engaging themselves in necessary integration activities, and thus maintaining barriers between the integrating organizations (Meynerts-Stiller & Rohloff, 2019). Thus, integration managers are agents of change who not only support the post-acquisition integration change process, enhance the transmission of information between the acquired and buying firms, but who also motivate and inspire people to become committed to the new organization.

Integration managers are also defined as "*project manager that the acquiring firm appoints to be responsible for coordinating all activities related to successfully integrating the acquired firm into the acquiring firm's operations and organization*" (Teerikangas et al., 2011, p.653). Although integration managers certainly are key actors in deciding and prioritizing issues that need to be implemented during integration, perceiving them as project managers only implies that they are mostly following a strategic agenda pre-determined by top management. Existing literature, however, suggests that strategic direction given by the top management may be considerably more ambiguous (Risberg, 2003). Therefore, integration managers are implicitly expected to fill in the missing content of the strategic outlines.

The existing empirical literature on integration managers argues that integration managers fulfill many roles, and at times these findings are conflicting. For example, the study by Ashkenas, DeMonaco, and Francis (1998) reveals that integration managers are agent of change with power, who are held accountable for the creation and delivery of an integration plan and for reaching the plan's milestones. In contrast, the study by Balogun, Gleadle, Hailey, and Willmott (2005) discloses integration managers as recipients of change without formal power, and who accomplish integration through persuasion rather than absolute control. Furthermore, Teerikangas and Birollo (2018) acknowledge the dual activity of integration managers who are trapped between driving change while simultaneously facing the change. They illustrate that integration managers need to combine these two roles – "driver and experiencer of change" – to be able to make a difference in the implementation of change during post-acquisition.

In addition to different roles of integration managers, the M&A research also stands on the following two positions about integration managers. The first one, and perhaps the dominating one, is that managers are responsible for driving integration (Schriber, 2012). They generally are central in leading integration to successfully realize synergy potentials (Larsson & Finkelsetain, 1999). Integration managers take the top management's plans and put them into place (Nutt, 1987). The second position argues that integration managers are more destructive than productive players in the post-acquisition integration. A number of studies observed that integration managers might disrupt the implementation process by manipulating the process (Meyer, 2006; Vaara, 2003). In the light of the above, the success of acquisitions can be strongly affected by integration managers either in constructive or destructive ways (Waldman & Javidan, 2009).

Furthermore, the management of post-acquisition integration requires active contribution from the integration managers directly responsible for the success of the execution, which assumes equal contribution of representatives from both buying and acquired company (Teerikangas & Very, 2006). Existing literature recognizes integration managers' role in change implementation as acquiring firm integration managers (Ashkenas et al. 1998; Ashkenas & Francis, 2000; Dagnino & Pisano, 2008; Teerikangas et al., 2011) or as acquired firm managers (Balle, 2008; Graebner, 2004; Meyer, 2006; Monin et al., 2013; Rovio &Johansson, 2007; Solstad & Petterson, 2020; Teerikangas, 2012) or as both acquired and buying firm managers (Chreim & Tafaghod, 2012; Moilanen, 2016). The efforts of integration managers are, however, of little use unless their attitudes are aligned and supportive of integration (Erkkilä, 2017). Still, when the reactions of the acquired integration managers are unnoticed, emotional tensions and other destructive reactions during post-acquisition integration can turn into so called silent forces and reduce the potential of intended value creation (Teerikangas & Very, 2006).

Lastly, integration managers are likely to face a range of uncertainties that must be managed. For instance, it is acknowledged that among other things, integration managers from the buying firm might experience information asymmetry concerning the target (Jemison & Sitkin, 1986). Integration managers from both buying and acquired firms might experience uncertainty about the definition of their role in influencing the content of the strategy and in the integration process (Ashkenas & Francis, 2000; Haspeslagh & Jemison, 1991), uncertainty about their regular job post integration, or diminished power (Ashkenas et al., 1998). Above all, besides maintaining the day-to-day business operations, integration managers in international M&A need to build new relationships by bridging language and cultural gaps (Ashkenas & Francis, 2000; Vaara, 2003). In addition, integration managers from an acquired firm might be ill informed about the chosen strategic direction of the company and might lack commitment to that strategy, which leads to unsupportive behavior at least, and implementation problems and unsuccessful execution of strategy at worst (Meyer, 2006). Notwithstanding the studies by Haspeslagh and Jemison (1991), Ashkenas et al., (1998), Ashkenas and Francis (2000) and Teerikangas et al., (2011), *the field of M&A can be criticized for lacking in-depth empirical research on the uncertainties and ambiguities around integration issues and integration managers* (Jemison & Sitkin, 1986; Vaara, 2003). This means that existing studies have paid little attention to the role of integration managers in managing uncertainties during the integration process.

In conclusion, integration managers are active participants who interpret and make sense of strategic information. They operate in complex environments and are connected with a complex set of relationships with different actors who are affected by integration in different ways. Hence, mere structural, strategic or cultural perspectives cannot provide exhaustive explanations of the patterns and dynamic of emerging uncertainties. A key insight to understanding how uncertainty develops and is managed in the organization can be developed by exploring the activities of integration managers in the light of uncertainties that emerge in the post-acquisition integration phase.

2.4 Post-acquisition integration in international M&A

The key decisions of MNCs that the IB literature has dwelled on consider not only whether to internationalize, but also how do it. Much of the existing work on MNCs within the area of IB has concentrated on the determinants and performance of different forms of entry modes conducted by MNCs, including international M&A. Hence, MNC-level research has increasingly focused on the home and host countries' environment surrounding MNCs (Buckley & Casson, 1976; Dunning, 1977, 1979, 1980). The key interest has been in finding alternative forms of international organization that enables a balance between the demands of global scale and local adaptation (Bartlett & Ghoshal, 1989).

While M&A involve two firms within the same country, IM&A involve firms headquartered in two different countries (Hitt et al., 2001; Shimitzu et al., 2004). The literature on international acquisitions is not very large compared to the more general literature (Risberg, 2003). IM&A research has focused on a number of central issues, such as IM&A as a mode of entry (Brouthers & Brouthers, 2000), performance outcomes from acquisitive entry (Brouthers, 2002), shareholders' value creation through IM&A (Datta & Puia, 1995), national and organizational cultural integration in IM&A (Chatterjee et al., 1992; Weber et al., 1996; Larsson & Lubatkin, 2001), acculturation in IM&A (Nahavandi & Malekzadeh, 1988; Thanos & Papadakis, 2012; Very et al., 1996; Yen & Liao, 2003).

Although the dynamics of post-acquisition integration in IM&A are largely similar to those of domestic M&A (Child et al., 2001), the international nature of the integration process might involve unique challenges. When the companies integrate and employees begin to make sense of 'the other', cultural differences become more visible. The culture in this context illustrates shared goals, roles, norms and ideologies of an organization and its members (Chatterjee et al., 1992; Weber et al., 1996; Larsson & Lubatkin, 2001). The culture in international post-acquisition integration is represented by both national and organizational cultures, as well as various subcultures within organizations.

The study by Marks and Mirvis (2010) illustrates the process in which the cultural clash of integrating companies unfolds. First, employees in these companies recognize the difference between the style of their leaders and their decision-making approaches. Then, employees magnify the observed differences, which lead to 'we' versus 'they' distinctions in perceived cultural differences. Next, employees begin stereotyping others, which eventually leads to cultural clash that might result in disparagement of the partner company. To resolve the emerged situation, studies applied the concept of acculturation (Nahavandi & Malekzadeh, 1988; Very et al., 1996; Larsson & Lubatkin, 2001; Yen & Liao, 2003). The outcome of the acculturation is the integration of two autonomous cultures into one. The existing research articulates that in IM&A one culture typically dominates the other and influences the direction of cultural changes in a new organization (Marks & Mirvis, 2011). According to existing understanding, the effect of cultural differences on IM&A performance depends on how effective a comprehensive approach to build cultural understanding and synergies is used during post-acquisition integration (Weber et al., 2011; Marks & Mirivs, 2011).

While the research on post-acquisition integration in IM&A is rather limited, scholars have provided a number of important insights on the topic that can be categorized into three key themes. First, substantial research attention has been devoted to the post-acquisition integration challenges caused by corporate and national cultures. Acculturative stress is more likely to emerge in international post-acquisition integrations than in domestic ones (Very et al., 1996), which in turn becomes a disruptive and key obstacle to integration. Furthermore, the challenges of post-acquisition integration associated with the corporate culture differences between the two firms as well as cultural distances between two home countries might lead to double-layered acculturation. Barkema et al. (1996) defined this as double-layered acculturation – the problem of integrating cultures at a double level, which might become a barrier for the firms to learn from each other. It is also acknowledged that the type and degree of integration affect the firms' consideration of the cultural differences during post-acquisition integration. The higher the level of integration required, the greater the need to manage cultural differences (Chatterjee et al., 1992; Weber et al., 1996).

Second, the preferences for the level of control during post-acquisition integration depend on the buyers' nationality. National culture forms the context in which managerial practices are developed (Calori et al., 1997). National culture of the managers from the buying firm determine the choice of managerial practices and the level of established control during post-acquisition integration (Calori et al., 1997; Lubatkin et al., 1998). Also, as the research shows, some cultures are more prone in taking opportunistic actions and, hence, cultures differ deeply in the types of the preferred corporate governance mechanisms (Gedajlovic & Shapiro, 1998).

Third, the level of control established by the buying firm during post-acquisition integration, shapes the performance of the acquisition. The research shows that any set of control could be successful if managed effectively (Child et al., 2001). Nevertheless, executives of firms acquired by foreign firms are more likely to leave than those acquired by domestic firms (Krug & Hegarty, 2001). The loss of executives is often considered as a significant loss of valuable resources, which decreases the value of the acquired firm. Successful IM&A require managers in the buying firm to develop a global mindset, which helps the managers to perceive acquired firm from a broader perspective and to recognize the value of cultural differences (Hitt et al., 2001).

Since the research on post-acquisition integration in IM&A is still rather limited, certain themes in this research area need to be clarified by scholars. One of such areas is the role of integration teams and integration managers in post-acquisition integration. It becomes a common practice that firms that are actively involved in IM&A are increasingly using integration managers. The key purpose of these managers is to plan, coordinate and lead firms through the integration process (Inkpen et al., 2000). Although the type and the level of responsibility of integration managers might vary depending on the type of post-acquisition integration processes, forming effective team of integration managers for international post-acquisition integration is still important (Shimizu et al., 2004). Hence, a better understanding of the human factor within these integration teams and the processes they use to guide post-acquisition integration is needed (Shimizu et al., 2004). Moreover, integration teams are composed of individual managers whose perceptions, managerial qualities as well as decision-making processes exceed far beyond those of the competences of the gatekeepers described by Haspeslagh and Jemison (1991) and shape the flow of post-acquisition integration process. There are only a few articles that review the role of integration teams and integration managers in IM&A and they are mainly devoted to practitioners (Ashkenas & Francis, 2000; Ashkenas et al., 1998). Hence, more theoretical and empirical research is needed on integration teams and their managers in IM&A.

2.5 Individual decision-making and team dynamics

The organizational behavior literature focuses primarily on the human aspects of organizations (Robbins et al., 2014). In particular, it studies human behavior in organizational settings, the interface between individuals, teams and the organization itself (Moorhead & Griffin, 1995). In organizational behavior studies, decision-making is understood as a product of both the way individuals and teams make decisions and the context in which these individuals and teams make decisions (Carley & Behrens, 1999). Hence, organizations are created, maintained and operated by people where their decision-making lies at the heart of organization (Barnard, 1968). A link between individual-level decision-making and organizational-level outcomes is a recognized challenge for the researchers in various fields (e.g., Renkema et al., 2016; Stigliani & Ravasi, 2012; Hitt et al., 2007; Roth & Kostova, 2003). While suggesting alternatives to bridge the gap between individual-, team-, and organizational-levels of analysis, most scholars agree that this gap is difficult to remediate. Nevertheless, researching problems from multi-level perspectives is more likely to provide us with more detailed insights about how organizations operate and make decisions and, in particular, how individual-level decision-making impacts organizational-level outcomes (Hitt et al., 2007). *Considering the dominance of organizational-level research in the IB literature, the key aspects of organizational behavior that this dissertation builds on and makes an intake is the importance of understanding decision-making process at the individual-level and its impact at the team-level decision-making.*

2.5.1 Individual-level decision-making

The behavioral theory of the firm (Cyert & March, 1963) is one of the most recognized theories that explain how managers make decisions in organizations. It illustrates the role of managerial characteristics and recognizes the influence of bounded rationality on the decision-makers. The most fundamental challenge that decision-makers face is the processing of complex and ambiguous stimuli when making decisions under uncertainty (Starbuck & Milliken, 1988). Quite often, decision-makers are forced to process more information than they can fully comprehend. Thus, as previous research demonstrates, decision-makers reduce cognitive effort through the use of heuristics and cognitive schemas to integrate available information into a single judgment in making decisions (March & Simon, 1958; Schwenk, 1988). Decision-makers apply heuristics and cognitive schemas to organize the excessive amount of information and to simplify the decision-making process (Shaw, 1990).

The cognitive schemas and heuristics are determined by decision-makers' background and experiences (Schwenk, 1988), meaning that decisions are made not on the basis of the real situation, but more on the decision-makers' perceptions and constructed reality (Cyert & March, 1963; March & Simon, 1958; Sutton, 1987). Hence, decision-makers' perceptions not only define a problem, but also affect the choice of a decision to be made.

The organizational behavior literature recognizes that decision-makers' cognitive base and values influence the decision-making process in the following ways: (1) they shape decision-makers' attention, (2) they filter decision-makers' perception to only selected stimuli, and (3) they filter decision-makers' lenses through which their perceptions are interpreted (Hambrick & Mason, 1984). Cognitive base and values co-exist to shape decision-makers' perceptions of the environment and situation, and influence the final decision.

Understanding decision-making processes at the individual level, becomes important for a number of key reasons as justified in the organizational behavior literature.

First, and perhaps most importantly, understanding individual-level decision-making processes contributes to a more comprehensive understanding of why firms exist. Most academics address this question from a transaction cost perspective (Coase, 1937; Williamson, 1975) or from a capability and knowledge-based perspective (Barney, 1991; Kogut & Zander, 1992; Wernerfelt, 1984). While these are clearly valid perspectives, this dissertation is more aligned with Moran and Ghoshal's (1996, 1999) and Birkinshaw & Gupta (2013) view which states that firms exist to do things that markets cannot. In a nutshell, their arguments state that markets allocate resources efficiently to their short-term best use, whereas firms have the capacity to take such resources out of their short-term best use and transform them, through various methods, into outputs that in the long-term have the potential to create new value. This is why both markets and firms are needed for economic development. In a simplified version, this perspective suggests that firms exist to do difficult things, such as making trade-offs between short- and long-term demands and allocating scarce resources among competing priorities depending on multiple criteria. To be effective in these difficult tasks, firms require managerial competence. Firms need managers who can make thoughtful trade-offs between competing demands, and who can find creative solutions in value creation (Birkinshaw & Gupta, 2013; Ghoshal & Bartlett, 1994; Smith & Lewis, 2011). These are individuals who make choices and decisions that emphasize one objective ahead of another. Therefore, to study an individual-level decision-making is to help a firm to achieve its aim and purpose.

Second, the case for individual-level or micro-foundations studies may be motivated by this fact that understanding the fundamental cogs and wheels of what happens in organizations requires beginning from their fundamental constituents, namely individuals (Felin & Foss, 2005). Understanding of the level of individuals and their interaction may yield novel insights in organizational-level phenomena (Stinchcombe, 1991) and, in particular, understanding of the true mechanisms through which individuals shape organizational-level decision-making (Coleman, 1990; Hodgkinson & Sadler-Smith, 2018; Langley, 1995).

Third, focus on the individual-level decision-making emphasizes inner relationships among managerial behavior, firm characteristics and goals, and environmental forces, which becomes a valuable contribution to the economic theories of the firm (Huff et al., 2000). Firms within the same competitive environment respond in idiosyncratic ways to changing environmental conditions. Such differences were of little interest to traditional economic theory (Nelson, 1991), while those with behavioral concerns found them of central importance. In general, behavioral theories are more concerned with differences among firms than similarities, and more interested in dynamics than in expected equilibrium (Carroll, 1993), and where a number of studies indicate that there is considerable variation in mental models held by different individuals, even when they participate in apparently homogeneous settings (e.g., Hodgkinson & Johnson, 1994).

2.5.2 Team dynamics

To understand the impact of the individual-level decision-making on organizational-level outcomes, the organizational behavior literature recommends to build the link between individual- and team-level of analysis as an initial step (Stigliani & Ravasi, 2012). Individual-level decision-making is defined as individual processes and activities taking place at the individual manager’s level.

These might include activities of managers such as attention allocation or framing (Maitland and Sammartino, 2015a). The concept of team-level decision-making is defined as collective processes and activities that take place at a higher level than individual level and at a lower level than organizational level. These might include activities of teams such as issue-selling or interactions (Dutton et al., 2001). The organizational behavior as well as organizational studies literatures recognize a number of tendencies in team dynamics that are likely to emerge when linking individual-level decision-making with the organization-level outcomes (Kouamé & Langley, 2017). These tendencies are important to recognize in order to enable understanding about how micro-level processes can make a difference to macro-level outcomes.

One of these tendencies assume that individual-level decision-making has a direct impact and shapes organizational-level outcomes (Gilbert, 2005; Martin & Eisenhardt, 2010; Nag & Gioia, 2012). Variation in organizational-level outcomes can be explained through variations in individual-level processes. For example, the ways managers use real time information and analyze multiple alternatives influence organizational practices and behaviors among management teams, and that simultaneously shapes decision speed and organizational performance in a highly uncertain environment (Eisenhardt, 1989).

Another tendency relies on the assumption that individual-, team-, and organizational-levels are recursively interconnected (Burgelman, 1983; Barley, 1986). The cycles of influence among different levels are sequential and mutual, and take place over time (Jarzabkowski, 2008; Kaplan & Orlikowski, 2013). For example, in the study by Vuori & Huy (2016) interplay between several processes that took place at the individual- and team-levels resulted over time in the failure of the company. In particular, middle managers, terrorized by top managers' history of aggression, responded to requests for action by overpromising and hiding problems. Top managers, in turn, were concerned about the company's loss to competitors and increased their pressure on middle managers without realistic assessment of their capabilities. Fear and hiding of the problems resulted in a self-reinforcing dynamic that damaged the organizational change management process (Vuori & Huy, 2016).

Lastly, the literature shows that individual-level processes might directly instantiate or constitute the organizational-level processes through which the organization exists or is changing (Taylor & Van Every, 2000). The relationship between the processes at the individual-level and organizational-level outcomes is implicit and simultaneous. A number of researchers examined specific events to show how individual behaviors in interaction contribute to constituting performance at the organizational level where performance is expressed in terms of a verb rather than as an outcome (Kornberger & Clegg, 2011). This tendency of the multi-level interlinkages suggests a shift from how individual-level activities predict organizational-level outcomes toward what it is that individual-level activities actually accomplish (Kouamé & Langley, 2017). For example, in the study by Rouleau (2005) two middle managers at their interface with clients skillfully enacted the organization's recently formulated strategy by adjusting their messages to the clients, drawing on cultural values and providing reasonable justifications. This suggests that it is through such individual-level interactions by skillful individuals that the organizational strategy is maintained and performed (Rouleau & Balogun, 2011).

To sum up, although the presented tendencies of linking multi-level decision-making processes might have certain strengths and weakness, they offer different illustrative perspectives and enrich our understanding of the dynamics between individual- and team-level processes and organizational-level outcomes.

2.6 Concluding remarks

In conclusion, the scope of the IB research domain has developed significantly since its inception as a result of constant changes and evolving uncertainties in the external environments where MNCs operate. The increasing complexity of the IB context has generated the need for more interdisciplinary work to answer the core question of IB research, which is understanding what determines the international success and failure of MNCs (Peng, 2004; Shenkar, 2004). The current need of IB research is to integrate and synthesize the earlier developed knowledge into integrative framework (Wright & Ricks, 1994). Nevertheless, some scholars express their concern that in its current stage with intensive import of theories from other disciplines, IB research lacks the ability to produce new theoretical frameworks (Buckley, 2002) and independent international business theories (Buckley & Lessard, 2005). Similar views are shared by Griffith et al. (2008) who question the applicability of the IB field's knowledge developed four decades ago to the complexity of the context where MNCs operate and make decisions today.

Does the lack of new international business theories represent a threat to the field of IB studies as an independent research domain? This dissertation shares a similar view with Cheng et al. (2009) who argue that renewed theoretical development of IB field is possible only through a deeper understanding of the related contextual processes where MNCs operate. This, in turn, requires more coherent integration of interdisciplinary and multiple forms of knowledge and methods to advance the status of IB field. To contribute to the further development of the IB field, this dissertation looks at and systematizes one of the most significant factors of the contextual processes and their environment – uncertainty and its management. Furthermore, it integrates certain key assumptions about the concept of uncertainty and decision-making from the fields of Organizational Studies and Organizational Behavior.

3 METHODS

This chapter outlines the philosophical and methodological choices of this dissertation and describes the research approach. Following this, the research context and data collection methods are explained. Lastly, the data analysis process is elaborated together with a discussion of the quality criteria that were applied. Empirical essays 2-3 are based on the same research design, approach and data set.

3.1 Philosophical background

The philosophical background of the research lies in the research paradigm that guides how the research is to be conducted (Hallebone & Priest, 2009). A research paradigm is a belief system of the researcher that is based on three key dimensions: ontology, epistemology, and methodology (Olsen et al., 1992). The term *ontology* refers to the nature of reality and what can be known about it (Wand & Weber, 1993). Different kinds of research are founded on different beliefs about what the truth is and whether that truth even exists. The eternal ontological debate is whether reality exists independent of human consciousness and experience, or reality exists within human's consciousness and only through experience. Philosophies about reality can be divided in different ways, but the two types of ontology that are essentially opposites – realism and relativism (Killam, 2013). Realism is an ontological domain where reality exists independent of the human mind (Denzin & Lincoln, 2005). Realists believe that one truth exists and it does not change. In this ontological domain, the truth can be discovered using objective measurements. Once the truth is found, it can be generalized to other contexts (Killam, 2013). The opposite view of realism is called relativism. Relativists believe in multiple versions of reality. What is real depends on the meaning that a researcher attaches to truth and truth does not exist without meaning (Denzin & Lincoln, 2005). Since reality is created by how a researcher sees things, it evolves and changes depending on the researcher's experiences. Hence, if reality in relativistic domain is context bound, it cannot be generalized. It can only be transferred to other similar contexts (Guba & Lincoln, 2005).

Epistemology refers to the nature of the relationship between the researcher and what can be known from investigating reality (Hirschheim et al., 1995). In other words, it means what relationship the researchers have with the research, how they get knowledge and how they discover new things. It is important to admit that ontological beliefs dictate epistemological beliefs and that is what the researcher believes about the nature of reality will dictate the kind of relationship the researcher should have with whatever is being studied (Killam, 2013). For the purpose of this research, two opposing epistemological stances of objectivism and subjectivism are presented. Some researchers believe that research should be conducted in an objective way and researchers should not influence the data that are gathered (Crotty, 1998). In that case, to find out what the truth is, the researchers need to stay as far away from the research so that they can obtain an objective measurement without disturbing the reality. In this stance, a researcher takes an outsider's view of someone else's situation. The opposite approach to research would be taking a subjective epistemological stance. Here, interacting with people to find out what truth means to them is needed (Denzin & Lincoln, 2005). There researchers would also want to get inside the studied phenomenon. The potential influence of the researcher on what is being researched is acknowledged or even embraced. Interaction is seen as a necessary element to gain an in-depth understanding of the studied phenomenon.

Methodology refers to philosophies that guide how knowledge should be gathered (Wand & Weber, 1993). It means how knowledge is discovered and analyzed in a systematic way (Killam, 2013). Methodology can be divided based on the ontological and epistemological beliefs that led to them. For the purpose of this research, two most common methodological approaches are discussed: quantitative and qualitative. Quantitative approach is designed to discover one truth. It is built on the idea that data should be discovered and analyzed in an objective way (Creswell, 2017). When integrating quantitative approach, researchers plan in advance to eliminate the influence of any possible contextual factors. These researchers believe that the only way the truth can be discovered is by removing it from its context. In qualitative approach, decisions are based on complex philosophies about how data should be collected and analyzed (Creswell, 2017). It is designed to explore lived experiences and to understand the context of the experiences. Researchers interact with research participants to gather specific information about the context. Then they look for patterns or common findings in their data.

Any research is guided by a set of beliefs. This set of beliefs or worldview is known as a paradigm (Killam, 2013). Denzin and Lincoln (2005) define paradigms as the researcher's net that holds the ontological, epistemological, and methodological beliefs, and refer to the "taken for granted" aspects of a paradigm as "first principles, or ultimates" (p. 183). A paradigm is essentially a way of thinking about the world. Still, there is no way to prove that one paradigm is superior to the others, which is why they are often debated (Guba & Lincoln, 2005).

Research paradigms can be classified into a number of philosophically distinct categories: positivism, post-positivism, interpretivism and constructivism (Guba & Lincoln, 2005; Gephart, 1999). These philosophical perspectives are the popular paradigms in contemporary social, organizational, and management research. In this dissertation, the difference among presented philosophical categories is discussed through an ontological perspective and that is the way these philosophical paradigms perceive reality (see Figure 2).

Positivism is a paradigm of inquiry that searches for "the truth" or facts about reality. At the ontological level, positivists assume that there is an objective, constant reality that exists and can be measured objectively. Since a reality exists and it can be discovered, the epistemology within positivism is objective in nature and reality is measurable using properties that are independent of the researcher (Henning et al., 2004, p. 17). The methodology in this paradigm is therefore experimental or manipulative in nature where hypotheses are tested and quantitative methods are viewed as superior (Creswell, 2017). Another term that is essentially similar to positivism is modernism and it is based on generalized truths about reality (Killam, 2013). Modernists search for certainty and permanent universal laws. Although the positivistic paradigm continues to dominate social science research, it has been challenged by critics from alternative paradigms – post-positivism, interpretivism and, the most opposite, constructivism – due to its lack of subjectivity in interpreting social reality.

Constructivists believe that individuals or groups construct meaning or reality based on interactions with the social environment (Gephart, 1999). At the ontological level, individuals or groups do not find knowledge, but rather construct it (Killam, 2013). It is therefore possible to have multiple, socially constructed realities that are all considered correct. Constructivists reject the notion that an objective reality exists. The epistemology considers the researcher and participant as co-creators of the findings. It involves interaction between the researcher and participants. The methodologies used in constructivist research are therefore based on interactions between and among the researcher and participant. A consensus is sought within the findings. Qualitative methods like in-depth interviews are sued and context is well described.

Between positivism and constructivism there are paradigms that combine varying degrees of both of these opposing perspectives. *Post-positivism* is a paradigm that represents one of the earliest shifts away from positivism and shares a number of similarities with it (Killam, 2013). Post-positivism is founded on a critical realist ontology. Like realists, critical realists believe that a reality exists. However, they do not think that it can be perfectly detected due to our flawed ways of finding it as well as the nature of phenomena. Critical realists believe that claims of reality need to be critically examined in a variety of ways to get the closest possible estimation of reality, but it will never be perfect (Gephart, 1999). In post-positivism a theory cannot be proven, but a strong case can be made for it by disproving alternative explanations. The epistemology within post-positivism, like positivism, values objectivity. However, unlike positivism, post-positivists do not believe it is possible to maintain absolute distance from the researched (Killam, 2013). They also recognize and attempt to control the potential influences that the researcher's background knowledge could have on observations. Findings are evaluated based on pre-existing knowledge and critique. The methodology in this post-positivistic paradigm incorporates a combination of quantitative and qualitative methods. They believe that knowledge exists in a social context that can be understood best by using both quasi-experiments and interpretive research methods. Instead of proving hypotheses they are falsified. More contextual information is collected and the view of participants is sought to determine meaning and contribute to grounded theory.

While critical realism has been described as the ontology underpinning the post-positivism paradigm, some philosophies of critical realism can be said to be more distinct. One way of looking at critical realism is the combination of a realist ontology and a relativist epistemology (Killam, 2013). Critical realists believe that a reality exists, which does not depend on our perception of it (Reeves & Hedberg, 2003).

Interpretivists assume that reality consists of people's subjective experiences of the external world and their ontological belief is that reality is socially constructed. In the interpretive tradition there are no correct or incorrect theories, instead they are judged according to how interesting they are to the researcher as well as those involved in the same field (Walsham, 1993). Interpretivists believe that knowledge and meaning are acts of interpretation, thus there is no objective knowledge (Gephart, 1999). Interpretivism attempts to understand phenomena through the meanings that people assign to them (Deetz, 1996; Reeves & Hedberg, 2003).

	Positivism	Post-positivism	Interpretivism	Constructivism
Ontology	One reality exists that can be found	Reality exists but it cannot be accurately detected	Realities are relevant to particular circumstances	Realities are co-constructed
Epistemology	Dualist and Objective	Modified dualist and objective	Interactive and subjective experience of individual participants	Interactive and subjective with co-created findings
Methodology	Experiments leading to decontextualized results	Modified experimental and interpretive research	Qualitative, interpretative, and narrating the meaning of experiences	Qualitative, interpretative, and logical with a well described context

Realism
Objective, static and measurable truth; Context-free generalizations; Cause and effect laws

Critical Realism
A realist ontology with a relativist epistemology

Relativism
Searching for meaning; Subjective truths: Contextual knowledge; Truths change with time

Figure 2. Philosophical paradigms

3.1.1 The ontological and epistemological commitments of the dissertation

This dissertation adopts an *interpretive approach*, which is concerned with contextualized description, understanding and interpretation of the meanings given to social reality (Saunders et al., 2009). This study aspires to provide plausible interpretation of the social phenomenon at hand, that is, how individual integration managers perceive and manage uncertainty in post-acquisition integration, and how their perceptions influence integration teams' decision-making under uncertainty. Key characteristics of the interpretive approach integrated in this study are summarized in Table 2 below.

The ontological approach of this dissertation aims to present multiple voices of actors, i.e. integration managers, and interpret their social behavior and actions. In this dissertation, Essay 2 explores what integration managers from buying and acquired firms do, and how they think and behave in the post-acquisition integration as individuals and in teams. Furthermore, an interpretive approach allows in-depth description of organizational reality and rich depictions of integration managers' lived experience (Cantrell, 2001). In Essay 3 of this dissertation, integration managers' perceptions are investigated by drawing attention to how managers' sensemaking processes reflect the way they interpret uncertainty that is personally experienced.

The epistemological approach is based on the assumption that reality is understood as subjective, meaning that perceptions and experiences might differ for each person and change over time and context (Eriksson & Kovalainen, 2008). This approach is well suited to the assumptions of individual heterogeneity, unlike research at higher organizational levels which tend to downplay differences between individuals (Welch et al., 2011).

Table 2. Representation of the interpretive approach in this dissertation

Feature	Description
Purpose of research	Understand and interpret integration managers' ways of perceiving and managing uncertainties that could affect integration teams' decision-making in the post-acquisition integration process.
Ontology	• There are multiple realities. • Reality can be explored and constructed through managers' interactions. • Managers make sense of their social worlds in the natural setting by means of daily routines and conversations while interacting with others around them. • Many social realities exist due to varying managers' experience, including their knowledge, views and interpretations.
Epistemology	• Reality is subjective. • Events are understood through interpretation that is influenced by interaction with social contexts. • Actors in the research process socially construct knowledge by experiencing real life.
Methodology	• Data collected through qualitative research method. • Research is a product of the values of the researcher.

3.1.2 Positioning of the researcher

The disclosure of the researcher's position in relation to the research is vital in the interpretivist approach. Positioning refers to how the researchers view themselves in relation to the research and the data, and how they understand self in the creation of knowledge (Berger, 2003). As a researcher I come from a position of deep reflection on how I interact with the world. I believe that every experience has an impact on the way we interpret that experience as well as on the way how that lived experience will shape how we react to the experiences in the future. My research was motivated by an interest in understanding the nature and kinds of uncertainty in MNCs. Before empirical data collection, I conducted a systematic literature review to understand the current state of knowledge about the nature of uncertainty and its management in the field of IB. Hence, during the data collection I could not fully separate myself from what I knew and my empirical research was influenced by what I had known from the literature. Furthermore, I did not have any practical experience in organizing or leading mergers and acquisitions. As an interpretivist, I believe that reality is constructed inter-subjectively through interpretivism (Higgs, 2001). Hence, I, as the researcher, and the social world created through interacting with integration managers impacted on, and influenced one another.

The key words pertaining to the methodology of the interpretive approach are participation, collaboration and engagement (Henning et al., 2004). In the interpretive approach, the researcher does not stand above or outside, but is a participant observer (Carr and Kemmis, 1986, p. 88) who engages in the activities and discerns the meanings of actions as they are expressed within specific social contexts. In this dissertation, the researcher was an integral part of the study and a subjective research instrument. The researcher has never worked for any of the integrating companies and was rather new to their business. Nevertheless, both companies warmly welcomed the researcher to do the study, which resulted in high quality access to the research participants and generation of knowledge and insights that could not be obtained otherwise through, for example, a survey. The researcher believes that the research participants were able to talk freely and openly about the research phenomenon. It also felt like being an 'outsider' for the research participants in these companies helped the researcher to be perceived as a safe listener where they could openly reflect about their concerns, misunderstandings, and most importantly uncertainties, knowing that personal details of the participants are kept confidential.

Since knowledge is a product of co-creation between the researcher and the researched in a specific time and place (Welch & Piekkari, 2006), reflexivity is very important in interpretive research where the reality is subjective and socially constructed (Hardy et al., 2001). Thus, both the researcher and the integration managers are seen as participants in the research. The researcher actively shapes the course of the research process by being reflective about what the managers bring to the scene, what they see and how they see it (Charmaz, 2006, p. 15). The managers, on the other hand, shape the research process by shaping the course of the data collection rather than passively responding to the pre-set instructions and questions of the researcher.

3.2 Research approach

Existing studies have been dominated by positivistic approaches to theorizing. Positivist definitions of theory treat it as a statement of relationships between abstract concepts that cover a wide range of empirical observations. In this view, the objectives of theory are explanation and prediction (Charmaz, 2006, pp. 125-126). Thus, positivists use a deductive approach to support or refute hypothesis and to determine whether arguments are valid to test a theory (Saunders et al., 2009, p. 124). An alternative definition of theory emphasizes understanding rather than explanation. In particular, interpretive theories allow for indeterminacy rather than seeking causality, and give priority to showing patterns and connections rather than to linear reasoning (Charmaz, 2006, pp. 125-126). More importantly, interpretive theory calls for the understanding of the studied phenomenon. In these instances, inductive and abductive approaches are frequently integrated. Induction is an approach for building a grounded theory and for providing deep and rich theoretical descriptions of the contexts within which the research phenomenon occurs (Gioia et al., 2012). Abduction is an approach that begins with an unmet expectation and works backward to invent a plausible world or a theory that would make surprise meaningful (Van Maanen et al., 2007, p. 1149).

This dissertation follows the *inductive logic* that emphasizes the importance of understanding the studied phenomenon in the context within which it occurs. Hence, an inductive approach seems to fit well to this kind of qualitative study in which the understanding of the research phenomenon is socially constructed and where both the research participants and the researcher are knowledgeable agents who construct reality (Gioia et al., 2012). In this dissertation, the researcher avoided imposing prior constructs or theories on the informants as some sort of preferred explanation for understanding their experience. For example, during the interviews, the researcher was more open towards integration managers sharing their experiences of the post-acquisition integration process rather than asking integration managers to categorize dimensions of uncertainty and uncertainty management methods. However, it is important to admit that the researcher's previous knowledge of the topic might have implicitly shaped the construction of the interview questions and such words as 'uncertainty' and 'uncertainty management' were still used in the interviews. Still, it was very important for the researcher to give voice to the informants both in the early stages of data gathering and analysis, and to represent their voices in the reporting, which created rich opportunities for discovery of new concepts rather than affirmation of existing ones. At the same time, the role of the researcher was to figure out patterns in the data, surface concepts and relationships that might remain unnoticed for the informants, and to formulate the emerged concepts in theoretically relevant terms.

3.3 Research method and design

This dissertation adopts a qualitative research method. Qualitative research is often described in contrast to quantitative methods, which dominate the body of scientific work undertaken in social sciences, including business research (Eriksson & Kovalainen, 2008). Qualitative research emphasizes the qualities of entities – the processes and meanings that occur naturally, and addresses questions about how social experience is created and given meaning (Gephart, 2004, p. 455). Although qualitative research is known to be time-consuming and has a limited ability to generalize (Welch et al., 2011), it opens new areas for research and further investigation. Hence, this dissertation adopts a qualitative method because it allows to capture actors' lived experiences and interpretations supported with rich data and deep insights, to create openness by avoiding pre-given responses and pre-judgement, as well as to provide understanding of complex processes (Brannen & Doz, 2010; Graebner et al., 2012; Langley & Stensaker, 2012).

In order to understand how individual managers make sense and give meanings to the research phenomena, this dissertation uses meaning (versus measurement) oriented methodology that relies on a subjective relationship between the researcher and subjects (see Table 2). As expected from the interpretive paradigm, this research does not predefine dependent and independent variables, but focuses on the complexity of human sensemaking and sensegiving as the situation emerges (Saunders et al., 2009). This qualitative research method allows the researcher to study a complex phenomenon within its context. The research problem of this dissertation fits these criteria particularly well because of the complex nature of perceptual uncertainty that it studies, meaning that uncertainty is that kind of unknown factor that is not so easily identifiable from the initial steps of decision-making and it tends to emerge as the decision-making proceeds and to even change the initial path of the decision-making. In addition, integration managers are expected to anticipate uncertainties in a very sensitive and delicate context of post-acquisition integration, accompanied with high emotional attachments, cultural convergences, trust-building and identity crisis. This method involves an interpretive, naturalistic approach to the world, which means that the researcher studies the phenomenon in its natural setting, attempting to make sense of and to interpret this phenomenon in terms of the meaning actors bring to them (Denzin & Lincoln, 2000). Natural setting in this case relates to the temporality of the decision-making process. It means that the researcher was collecting data when the integration was still ongoing, integration managers were in the process of their decision-making, and the outcomes of their decisions were still unknown.

Table 3 below presents the research method and design of the different studies that comprise the dissertation. First, Essay 1 is a conceptual paper based on a systematic review of the IB literature. The following Essay 2 and Essay 3 employ a qualitative method using a single case study design to explore the research phenomenon.

Table 3. Research method and design of the dissertation

	Essay 1	**Essay 2**	**Essay 3**
Research approach	N/A	Inductive	Inductive
Research method	Conceptual	Qualitative	Qualitative
Research design	Systematic literature review	Single case study	Single case study
Data collection	Published journal articles	Multiple data sources: interview and non-interview data	Multiple data sources: interview and non-interview data

3.3.1 Systematic literature review

A systematic literature review is an explicit, trustworthy, and reproducible method to minimize bias, thus providing more reliable findings for the evaluation and interpretation of previous research relevant to a particular theme of interest (Alderson et al., 2004). There are four key principles that should be evident within a systematic literature review: transparency, inclusivity, and it should also be explanatory and heuristic (Denyer & Tranfield, 2009). In terms of transparency, a paper should explicitly describe the processes and methods employed in the review. To demonstrate inclusivity and the quality of information sources, the paper should place an emphasis on the reviewed articles' reported methods of data collection and analysis. The paper should also provide an explanation of conflicting extracts from individual studies and to integrate them into a holistic view of the research phenomenon. Lastly, the results of the review should be heuristic and should offer suggestions on how to address the emerged issues in the findings.

In this dissertation, Essay 1 adopts the systematic literature review practice recommended by Denyer and Tranfield (2009) for conducting the synthesis of the literature. These practices have been designed particularly for management and organization studies and have been used by other scholars to conduct systematic literature reviews in the business field (e.g., Ellwood et al., 2016). In the study, the researcher first identified relevant keywords and searched them in the EBSCO, ABI Inform ProQuest, Elsevier Science Direct, and Emerald databases. Then, the researcher manually checked the articles to include or exclude them based on their fit with inclusion parameters. This process led to the final set of 114 articles distributed among 23 highly-ranked, peer-reviewed academic journals. The selected articles were carefully read, synthesized and analyzed. The detailed methodological process is presented in Essay 1.

3.3.2 Case study design

Given the contested nature of the case study and conflicting views about it that emerge from differences in philosophical assumptions (Piekkari et al., 2009), it is difficult to offer one single definition. Nevertheless, to retain the consistency of this research, the definition of the case study is integrated from interpretive studies. A case study is research where 'the researcher explores a single entity or phenomenon [...] bounded by time and activity [...] and collects detailed information by using a variety of data collection procedures during a sustained period of time' (Creswell, 1994, p.12). 'Case study is not a methodological choice but a choice of what is to be studied [...] by whatever methods we choose to study the case' (Stake, 2005, p. 443). In this dissertation, a case refers to individuals and, in particular, integration managers embedded within the merged organization. The theoretical unit of analysis and empirical unit of data collection are at the individual level in Essay 2 of this dissertation. As for Essay 3, although it looks at integration teams' decision-making under uncertainty, and thus the theoretical unit of analysis could be considered at a team level, the empirical unit of data collection remains at the individual level. To understand how teams make decisions under uncertainty, the study in Essay 3 focuses on individuals in those teams and asks them to reflect on how the teams work.

When a decision about a particular research design is decided, one of the basic decisions to consider is whether the chosen design is feasible to the research problem. As for this dissertation, M&A are working in a highly sensitive context. After an announcement is made, it can transform into an incredibly emotional, strategically sensitive set of decisions that integration managers are making, so the need for confidentiality is very acute. Hence, it is not surprising that many companies that go through M&A will refuse access to researchers trying to study their decision-making processes. Therefore, the research design for this dissertation should also be viewed from the perspective of access. Considering all the difficulties of doing this kind of research on post-acquisition integration, access to the integration managers while they make their decisions is considered rare, unique and value-adding.

Table 4. Dimensions of the case study design in this dissertation (Essays 2-3)

Case study dimension*	**Current case study**
Philosophical foundation	Interpretive tradition to understand the perceived realities of integration managers and ways in which these managers construct meaning to these realities
Theorizing	Exploratory research to understand (vs. explain) the research phenomenon
Case selection	Single in-depth case study with rich contextual insights
Data sources	Interview data: focus on diverse emic meanings held by interviewed integration managers Triangulation to clarify meanings through additional non-interview data: documents, companies' newsletters, reports, video from the official meeting, company visit, newspaper posts.
Boundary setting	Case refers to the theoretical units of analysis – the individual (Essay 2) and the individual and team (Essay 3); and to the empirical unit of data collection – the individual (Essay 2 and Essay 3).

*Based on case study dimension criteria developed by Piekkari et al. (2009)

To correspond with recommended case study research practices, this study complied with a number of case study characteristics revealed through the following dimensions: philosophical foundation, theorizing, case selection, data sources, and boundary setting (see Table 4). The researcher's explicit stance on *the philosophical foundation* of the study is important because it has implications for doing and evaluating the case study and because the quality criteria for assessing case research are not value free (Piekkari et al., 2009; Platt, 1992). In terms of *theorizing*, positivists perceive the case study as the bridge to generalizable laws (Eisenhardt & Graebner, 2007), while for the alternative views including interpretivists, the case study is an approach to understanding a particular case in-depth (Dyer & Wilkins, 1991). Furthermore, *case selection* concerns the tension between pursuing a replication and generalization logic through multiple cases and seeking new theoretical insights with the richness of a single case study

(Piekkari et al., 2009). While the positivistic view tends to favor multiple case studies, interpretive view tends to gravitate toward in-depth single case, which provides rich and contextual insights into the dynamics of phenomenon. *Data sources* for interpretivists contain rich description for each case to capture meanings, multiple interpretations or casual complexity (Piekkari et al., 2009). Although the use of multiple sources is an important means for validating a case study, triangulation for more interpretivist traditions "serves also to clarify meaning by identifying different ways the phenomenon is being seen" (Stake, 2000: 441). Lastly, *boundary settings* for interpretivists are an emergent process which allows the researcher to respond to emerging insights and opportunities (Piekkari et al., 2009).

3.4 Empirical data collection and analysis

In this section, the researcher presents the background of the company and describes data collection and data analysis procedures.

3.4.1 Company background

This dissertation looks at the symbiotic cross-border integration of two Nordic MNCs in the industry of industrial goods and services that took place in 2014. In September, 2014 the buying firm announced a public tender offer to acquire all the shares of the target firm. By the end of November, 2014 the buying firm obtained approvals from all the relevant authorities and acquired more than 90% of the acquired firm's shares and its voting rights. The acquisition was finalized and publicly announced in December, 2014.

The acquired firm was a global player and had production and research and development facilities in Europe, Asia and North America. Its sales offices were located in 30 countries with its sales representatives and service partners in nearly 90 countries. The company employed around 1,500 people in 2013. In the same year, the buying firm was a world-leader in the industry with 23,000 employees and sales in more than 100 countries. As stated by the executives of the integrating firms, the integration was not done for cost cutting purposes, but rather the intention was to create synergy and complementarity of two strong players in the industry. At the time of the acquisition, the buying firm consisted of four key business segments and only one of its business segments was merged with the acquired firm. As part of the deal, the president of the acquired firm became a president of the newly emerged entity. Haspeslagh and Jemison (1991) categorize this type of integration as symbiotic. Symbiotic integrations are one of the most complicated to manage since they require both a high degree of integration and a high degree of autonomy. It means that a transfer of competencies and capabilities has to take place, but at the same time certain capabilities and know-how of the acquired firm need to be preserved.

3.4.2 Post-acquisition integration process

The process of post-acquisition integration followed the official closing of the acquisition deal. The existing M&A literature warns that the boundaries of when integration starts and when it ends are hard to determine in practice, because every deal is unique and different. Therefore, every post-acquisition integration has its own rhythm. It can take months or it can take years to fully complete the integration (Haspeslagh and Jemison, 1991). In this dissertation, although the company in focus did not have an explicitly defined time frame for the start and ending of its post-acquisition integration, based on the collected data and importance of the events highlighted by integration managers, the post-acquisition integration in focus could be categorized into three key phases (see Figure 3 for the post-acquisition integration time line).

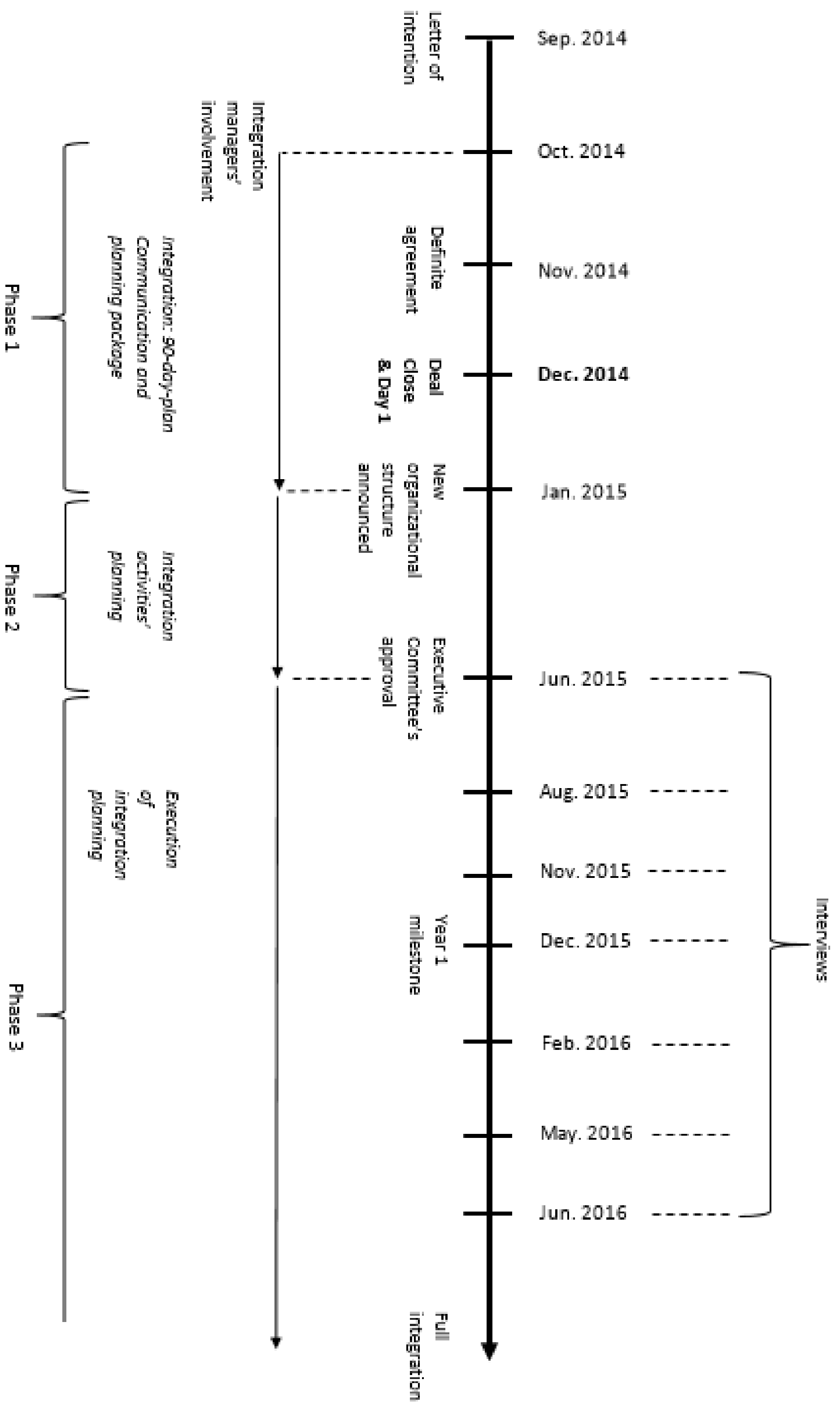

Figure 3. The post-acquisition integration timeline

First, as the data illustrated, integration managers defined their work on post-acquisition integration 90-day-plan as the start of the post-acquisition integration process. The creation of a '90-day-plan' is common practice in post-acquisition integration, and serves the purpose of a plan-book to track that integration reaches a certain point after 90 days. Work on the 90-day-plan began in October, 2014, two months before the official announcement of the acquisition. The second phase began in early January, 2015, when the integration team announced the organizational structure of a new organizational entity and the planning of integration activities was initiated. The structure of the new organization and appointment of new line managers at different organizational levels was in place in June, 2015. After that, the third phase began. It included execution and adjustment of integration plans at different organizational levels, and alignment of integration projects in different work streams. Integration managers mentioned that there was no official date for the full integration and for the official transition of their integration activities to the line managers. It is also important to admit that the listed phases in this case intermeshed between the pre- and post-acquisition phases, as the boundaries between them were not fully specified and the phases were performed simultaneously at certain points of integration (Gomes et al., 2013). Such context in itself triggered real-life uncertainties for integration managers.

Although publicly announced as a merger, typical to many mergers, integration managers from both buying and acquired firms saw it as an acquisition. This was particularly evidenced in the inconsistency between the stated expectations of the presidents of the integrating firms and the ways these statements were interpreted and executed by the integration managers. For example, the statement of the acquired firm's president that the color of the brand did not matter and that everyone would be treated equally, in practice it adopted different shades, and integration managers from the acquired firm felt the dominance of the integration managers from the buying firm when the color of the brand was changed to the color of the buyer. Although the integration managers from the acquired firm perceived this whole process as an acquisition, they still felt that with that announcement they would have higher opportunities for promotion in a new organization. In the light of the above, the studied case reflects more a blurred case and does not fall into being defined as merger neither acquisition. Existing M&A literature tends to neatly categorize M&As into either of categories, while in practice categorizing might be a challenge. Hence, the blurred case in itself is an illustrative example of contextual uncertainty, in the way that M&As are defined.

3.4.3 Structure of the integration team

For the purpose of leading the process of integration between the two firms, informing about the new strategic direction, and communicating decisions to employees, an official integration team was established (see Figure 4). The core of the integration team was 11 work streams. In each stream, one integration manager was a lead and one to three other integration managers co-leads. Each work stream focused on the transition within one specific functional area: sales, procurement, supply chain and productivity, R&D, product portfolio, branding, marketing, finance, HR, IT, and communication. Executive directors of the integrating firms assigned managers from both firms to each of these work streams. At the time of the data collection, integration managers from the acquired firm were leading the work streams on R&D, communication, finance, sales, and branding, whereas integration managers from the buying firm were leading the streams focused on: supply chain, product portfolio, procurement, HR, IT, and marketing. The integration managers were informed about the acquisition, interviewed and appointed to their positions as integration managers two months before the official announcement of the acquisition. The appointed integration managers worked in pairs of two to three people to find the best solutions within each area. The progress of the work streams was supervised by the corporate merger management office (MMO) that consisted of one head manager and four managers that provided execution support in communication, product management, financial and strategic areas of the integration. All managers of MMO were represented by integration managers from the buying firm. Although the official titles of all these managers in the integration process are leads, co-leads, MMO lead and MMO team, the researcher calls them all as integration managers.

Merger Steering Committee			President of the buying firm's merging business President of the acquired firm and new organization
Merger Management Office (MMO)			MMO lead Four integration managers with the following responsibilities: merger master planning, strategy & operating model, communications, planning & execution support
Work streams	1	Sales	Lead from the acquired firm; co-lead from the buying firm
	2	Procurement	Lead from the buying firm; co-lead from the acquired firm
	3	Supply Chain and Productivity	Lead from the buying firm; co-lead from the buying firm; two co-leads from the acquired firm
	4	R&D	Lead from the acquired firm; co-lead from the buying firm
	5	Product Portfolio	Lead from the buying firm; two co-leads from the acquired firm
	6	Branding	Lead from the acquired firm; co-lead from the buying firm
	7	Marketing	Lead from the buying firm; co-lead from the acquired firm
	8	Finance	Lead from the acquired firm; co-lead from the buying firm
	9	HR	Lead from the buying firm; co-lead from the acquired firm
	10	IT	Lead from the buying firm; co-lead from the acquired firm
	11	Communications	Lead from the acquired firm; co-lead from the buying firm

Figure 4. Structure of the integration team at the time of data collection

The process of the integration managers' appointment was unknown to the integration managers. As some of the integration managers speculated, they were selected for the interview because presidents of the merging companies saw them as promising and enthusiastic leaders. Furthermore, officially they were called leads and co-leads of the working streams. The time period for these positions was not clearly defined to integration managers. In the early stages of the integration process, the integration tasks were conducted along with business as usual. For example, some integration managers executed their business as usual activities during the day and remained in the offices for longer hours in the evening to work on integration related tasks. Not only integration managers had work overloads, they also needed to make their work secretly from the colleagues who were not part of the integration team particularly at the earlier stages of the integration. As the integration proceeded, integration managers concentrated on their integration related tasks and delegated up to 70 per cent of their business as usual tasks to the colleagues who were not part of the integration team. While working on the integration, most of the time, integration managers did not know where they would end up afterwards. Still, most of the integration managers speculated that because of their involvement in the integration process, they would be guaranteed with high responsibility positions in a new organization. However, when a structure for a new organization was formed, most of the integration managers from the acquired firm found out that they had been demoted from their previous positions. For example, an integration manager who had been leading the marketing function of an organization, was demoted to a team leader position in a new organization. Positions for the majority of the integration managers from the buying firm remained unchanged after the integration.

3.4.4 The choice of company and gaining access

An acquired company representative was doing a master thesis at the same university department with the researcher. It emerged that this person was also involved as an integration manager. Through subsequent meetings, we negotiated shared interests. That person gave the researcher legitimacy within an organization. That individual was also centrally giving the researcher organizational acceptance. Hence, it was an organizationally approved project, and when it came to contacting other organizational managers, they had been already informed about the researcher and the project.

The researcher negotiated real-time data access to the integration managers during the post-acquisition integration process. Access to the real-time integration planning and execution process is a useful complement to the tendency in existing studies to conduct research based on retrospective data (e.g., Graebner & Eisenhardt, 2004). Gaining access to collect data during the post-acquisition integration process tends to be unusual and can thus be considered as a major strength of the current thesis for two main reasons. First, the author interviewed integration managers when they were still either going through the integration or had just recently finished it. It allowed the author to grasp how integration managers experienced uncertainties as they unfolded and to record what was real to them at the time of decision-making. Second, access to integration managers who are still in the process of designing and executing their integration is rare. Hence, such data provides a potential to shed light on the nature of uncertainty and its perception. If we are to understand the nature of uncertainty better, we need to explore it as it emerges. Studying the phenomenon as it emerges, allows to grasp perceptions. Recalling is hard and can be even misleading since people tend to present things better than they were in real life (Kahneman, 2011). Also, since people are less sensitive to uncertainty than to risk and with time, uncertainty tends to transform into risk (Tversky & Fox, 1995), recalling the perceptions of uncertainty might be particularly difficult.

The researcher has chosen these companies for the case study for the following reasons. First, with the purpose to produce an in-depth understanding of the research phenomenon and a rich description of the context, the presented companies' context with the real-life integration seemed to fit perfectly the research aims. Secondly, with the purpose to explore different voices of the participants, during the pilot interview with the integration mangers who provided access to the integrating companies, the researcher realized integration managers' high interest in the research and their willingness to share their perceptions of the integration. Being positioned in the interpretive paradigm with an inductive approach to research, the researcher chose these companies to explore unanticipated findings and offer a fresh perspective on the existing understanding of the research phenomenon.

3.4.5 Data collection

Most of the data were generated primarily in the *interviews*. Qualitative interviews are usually used to explore complex and personal matters (Alvesson, 2003). The main goal of a qualitative interview is to understand the research phenomenon from the perspective of the interviewee and, in particular, how they have come to a particular conclusion (King, 1994). The choice of qualitative interviews was particularly suitable for this research because the study targeted to capture and understand the participants' different point of views. Nevertheless, it is important to mention that qualitative interviews are challenging research methods with ambiguous situations that require intensive sensemaking on behalf of the interviewee and where reflexivity regarding the interview situation, the interviewee and the accounts produced are expected from the researcher (Alvesson, 2003; Eriksson & Kovalainen, 2008). Thus, being positioned in the interpretive paradigm, the researcher relies largely on what the participants talk about and how they perceive the research phenomenon.

The empirical work was conducted during the integration period in 2015-2016 (please see Figure 3 for the post-acquisition integration time line and data collection). It consisted of two rounds of interviews. The first round of interviews was organized with integration managers from the work streams, while the second round of interviews was organized with integration managers from MMO. The researcher met the company representative (i.e. integration manager from the acquired firm) in May 2015 and the first pilot interview with that manager was organized in June 2015. Access to the merging companies' internal information was granted in August 2015 after a series of non-disclosure agreements between the researcher and the case companies had been signed. Also, in August 2015, the second interview with the same company representative was organized. The purpose of the interview was to understand the insights of the current phase on the integration process and receive in-depth information about other integration managers and their integration related decision-making phases. During the same interview, it was agreed that integration managers from the work streams will be interviewed in the first round, while integration managers from MMO will be interviewed in the second round. The key reason for that was that most of the integration managers from the work streams was actively involved in the integration related decision-making and interviewing them at early stage provided an access to their real life decision-making and, most importantly, uncertainties as they were emerging. In September 2015, the researcher contacted all 23 integration managers from work streams to schedule interviews with them.

The first round of interviews with integration managers began in the end of 2015, a year after the company's official M&A announcement (integration team was formed one month before the announcement) and took place over the subsequent seven months. The seven months period was predetermined by the availability of the integration managers with some of them being available for the interview already in November 2015, while for others early spring was preferable. During that period, eight integration managers from the acquired firm and five integration managers from the buying firm were interviewed. The interviewed integration managers provided insights about integration process that took place in eight work streams. Still, integration managers from sales, branding and marketing work streams were hard to reach even after a couple of attempts because of their limited availability. Table 5 below summarizes the number of interviewed integration managers from the work streams. During the first round of interviews with integration managers from the work streams, the researcher was given an access to the video from the official meeting where the acquisition was announced as well as the company visit was organized for the researcher.

Table 5. Structure of the work streams and interviewed integration managers

				Interviewed integration managers from the acquired firm	**Interviewed integration managers from the buying firm**
Work streams	1	Procurement	Lead from the buying firm; co-lead from the acquired firm	1 integration manager	1 integration manager
	2	Supply Chain and Productivity	Lead from the buying firm; co-lead from the buying firm; two co-leads from the acquired firm	2 integration managers	1 integration manager
	3	R&D	Lead from the acquired firm; co-lead from the buying firm	1 integration manager	1 integration manager
	4	Product Portfolio	Lead from the buying firm; two co-leads from the acquired firm	1 integration manager	1 integration manager
	5	Finance	Lead from the acquired firm; co-lead from the buying firm	1 integration manager	
	6	HR	Lead from the buying firm; co-lead from the acquired firm	1 integration manager	
	7	Communications	Lead from the acquired firm; co-lead from the buying firm	1 integration manager	
	8	IT	Lead from the buying firm; co-lead from acquired firm		1 integration manager

The second round of interviews with the MMO took place in June 2016. During that period, all five integration managers from the buying firm were interviewed. One month separated the two interview rounds, which allowed the researcher to reflect on the participants' reports. Such timing and intervals were applied because of the limited availability of integration managers from the MMO at the earlier stages of integration. The key role of the second interview round in this research was to understand the ongoing integration. For example, it was important for the researcher to hear MMO integration managers' perspective on why certain uncertainties emerged in the post-acquisition integration, how integration managers from the work streams experienced those uncertainties and what their role was in helping them to manage those uncertainties.

Both integration managers from the work streams and MMO were interviewed once, except for the key contact integration manager from the acquired firm who was interviewed three times. The average interview length was about 60 min, and the interview language was English. The researcher created a record of all the interviews through live recordings, simultaneous note taking and post-interview note-taking. The standard procedures for conducting qualitative semi-structured interviews (Kvale & Brinkman, 2015) were followed to organize the interview questions into two main sections. The first section covered interview questions related to background information of informants, including their current position, job roles, work history and experience. The second section posed questions around the main topic of the research. In particular, interview themes included questions related to integration managers' perceived uncertainty, uncertainty management, types of decision and decision-making processes under uncertainty, decisions and decision-making activities in/among work streams, and reflective summary of the interview. Detailed list of interview questions is provided in Appendix. Interview themes in both rounds of interviews were similar, still the level of concreteness and depth in questions depended on the interviewee's narrative.

Although the interviews were semi-structured, the researcher was giving the participants a possibility to describe their instances of uncertainty spontaneously, broadly and freely. The researcher started by asking integration managers to describe what kind of experience it was for them to be part of the integration decision-making. In their narratives, integration managers shared their understanding of the acquisition and integration process, what was happening and how they were involved. In those stories, they were sharing their encounters with uncertainty. As a follow up question, the researcher was asking the integration managers to elaborate about those encounters with examples. In some instances, the researcher had to clarify what an uncertain situation meant, while most interviewees were clear about different types of uncertainties and the ways they were different from risky situations. At the same time, the researcher tried to keep the role of a listener, asking a few guiding questions, and remaining open to what was specifically interesting in the participants' reflections from the researchers' point of view (Charmaz, 2006). To admit, the researcher organized interviews after conducting a systematic literature review on uncertainty in the field of IB studies. Such a background could have had an impact on the explorative nature of this research. Hence, when asking about uncertainty, the researcher preferred to stay neutral and avoid defining uncertainty as something negative or positive. The researcher wanted to observe how integration managers interpret uncertainty and whether they see it as an opportunity or a threat.

Altogether, 20 semi-structured interviews with 18 integration managers were conducted. The interviews took place at the integration mangers' offices, via skype, as well as the university premises. Whenever it was possible, the researcher insisted on face-to-face interviews. Even when organized via Skype, video calls were used over audio calls. The importance of the visual communication when discussing abstract concepts was explained to the interviewees. The researcher wanted to assure the confidentiality of the interviews as well as an opportunity to observe all non-verbal cues to guarantee in-depth and qualitative discussions.

Since almost half of the interviews were conducted via Skype, the rationale for using online interviews and the determination of whether the collected data accomplished the purpose of the study, needs to be explained. Online interviews were organized with the integration managers who were based in the country of the buying firm, which is a different country where both acquired firm and the researcher were based, and whose timetables were booked primarily with frequent travels related to the merger. Hence, online interviews were the most optimal solution to explore integration managers' decision-making without substantial destruction from their core activities. Skype was selected by the researcher based on its familiarity, availability and accessibility to both the researcher and the interviewed integration managers. When conducting interviews online, the potential for misunderstanding is arguably greater (Salmons, 2011). Hence, to ensure greater clarity and precision in the interviews, the researcher explained the interviewed integration managers the purpose of the study and what was expected from them and why before the actual interviews via both e-mails and phone calls. The work profiles of the interviewed integration managers were studied by the researcher before the interviews. Those profiles were useful data as the researcher was building her understanding of the context in which integration managers operated.

Table 6 below provides a list of the interviews conducted in this dissertation.

Table 6. Demographics of interview participants

Work stream, position, firm	**Title & function**	**Working years in the company**	**Education**	**Gender**	**Time & place of the interview**
R&D, lead, acquired firm	VP, R&D	10 years	Engineering	Male	15.6.2015 (face-to-face)
R&D, lead, acquired firm	VP, R&D	10 years	Engineering	Male	5.8.2015 (face-to-face)
Productivity & Supply Chain, co-lead, acquired firm	VP, Production and Logistics	3 years	Telecommunications	Male	9.11.2015 (face-to-face)
Product Portfolio, co-lead, acquired firm	VP, Marketing	15 years	Engineering	Female	9.11.2015 (face-to-face)
R&D, lead, acquired firm	VP, R&D	10 years	Engineering	Male	16.11.2015 (face-to-face)
Supply Chain, lead, buying firm	Head of Global Operation and Logistics	22 years	Engineering	Male	16.11.2015 (face-to-face)
Procurement, lead, buying firm	Purchasing Director	20 years	Engineering	Male	25.11.2015 (skype meeting)
Product Portfolio, lead, buying firm	Head of Global Product Management	21 years	International Marketing	Male	26.11.2015 (skype meeting)
Productivity, co-lead, acquired firm	Production and Logistics Director	11 years	Engineering	Male	04.12.2015 (face-to-face)
Procurement, co-lead, acquired firm	VP, Procurement and Sourcing	6 years	Engineering	Male	09.02.2016 (skype meeting)
R&D, co-lead, buying firm	Senior Director Global Project Office	29 years	Engineering	Male	10.02.2016 (skype meeting)
Communication, lead, acquired firm	Communication advisor	15 years	Humanities with a focus on Business & Technology	Male	16.02.2016 (face-to-face)
HR, co-lead, acquired firm	SVP, HR	16 years	Engineering, Economics	Female	17.02.2016 (face-to-face)
Finance, lead, acquired firm	Director, PO Business Control	15 years	Economics	Female	19.02.2016 (face-to-face)

Work stream, position, firm	Title & function	Working years in the company	Education	Gender	Time & place of the interview
IT, lead, buying firm	Senior Director, Global Business Systems	39 years	Technical	Male	02.05.2016 (skype meeting)
MMO, buying firm	Senior Director, Head of Division Strategy and Business Development	35 years	Engineering	Male	07.06.2016 (skype meeting)
MMO, buying firm	Senior Director, Business Development	21 years	Economics	Male	08.06.2016 (skype meeting)
MMO, buying firm	SVP, Supply Chain	26 years	Economics	Male	14.06.2016 (skype meeting)
MMO, buying firm	Senior Director, Special Projects	6 years	Technical, Business, Finance, Computer Science	Male	22.06.2016 (skype meeting)
MMO, buying firm	Strategic Business Review Manager	6 years	Business Administration	Male	28.06.2016 (skype meeting)

To reach a rich view of the topic, the researcher's aim was to interview the whole integration team. Thus, the only criterion for the selection of research participants was their involvement in the integration process. Before their full involvement in the integration process, the research participants were managers at different levels. They were previously vice presidents, department managers, directors, and team leaders. The focus, however, was not to compare the integration managers on different levels, but to receive diverse data about the work of integration managers. Integration managers with rich managerial experience were instantly able to categorize the types of uncertainties they perceived. They were also able to discuss various uncertainty management tools that they acquired throughout the years of experience. This experience has also provided them with more power and flexibility when they had to make decisions under uncertainty.

During the data collection, the researcher was concerned if the contacted integration managers could find time for the interview in their busy schedules and if they would have any concerns related to the sensitivity of the subject matter. To assure the confidentiality of the participants and their interviews, the researcher signed a number of non-disclosure agreements with the company that were confirmed by the lawyers of both the company and the university. The invitation letter for the interview informed integration managers about signed non-disclosure agreements and notified that the anonymity of their responses would be guaranteed. Quite often the interview discussions took place longer than scheduled, which always resulted in information about new areas of the research topic. It was truly interesting to listen to and observe how passionately integration managers analyzed the integration and all the changes and opportunities it brought into their lives.

The researcher's interview style changed throughout the data collection process. In the first interviews, the researcher used semi-structured questions. It also took two to three interviews for the researcher to get used to the integration managers' terminology and vocabulary. When the discussion got too technical, the researcher asked for clarification and simplification of the information. However, the further the research proceeded, the broader the discussion topics became. The researcher became more open to the messages of the participants and did not expect the answers to be provided in a particular pre-determined format. Rather, the researcher was open to discussions and let the integration managers tell in their own words their experience of the post-acquisition integration process. Identification and reflection on the topics that integration managers consider important is a vital part of inductive research.

It is a common fact that the use of language, as well as the researcher's and the interviewee's language skills, shape the dynamics of the cross-cultural interviews in various ways (Marschan-Piekkari & Reis, 2004). In the context of this dissertation, interviews were organized in English: a language that was non-native for both the researcher and the interviewees. Having interviews in a foreign language could have had an effect on the ways in which integration managers expressed their sensemaking activities decisions made under uncertainty and, consequently, on the credibility and trustworthiness of the collected data. Nevertheless, since the integration managers worked in an MNC where they used English on a daily basis and since they came from countries with a very good level of English, conducting interviews in English was not considered as a significant issue in this dissertation.

Non-interview data were used for studying phenomena in their social context. This kind of data is typically open in nature and useful for exploring the phenomenon intensively from the participants' point of view (Eriksson & Kovalainen, 2008). The non-interview data for this study included 25 issues (224 pages) of the merging companies' weekly newsletters on M&A, one webcast video (46 min) from the meeting where the official announcement of the acquisition took place, and one visit to the acquired firm's factory during the integration. As for the companies' newsletters, they were the main sources of the merger update to the employees in the merging companies. Each issue included a message from top management, a weekly update on the integration process from a particular department, a Q&A session, and interviews with the integration managers responsible for the integration of particular departments. The content of the newsletters was very detailed and informative with specific examples of the decisions being made. Therefore, in certain occasions, the researcher integrated the information from the newsletters to provide important contextual data. In addition, triangulation of additional non-interview data such as all publicly available documentations and newspaper posts was used to clarify meanings and to consider alternative interpretations of the same events and decisions.

Two empirical essays of this dissertation used these same data sources, i.e. all 20 interviews.

3.4.6 Data analysis

Systematic literature review

To maintain consistency with Denyer and Tranfield's (2009) systematic review practices, analysis of the selected articles proceeded through three main phases. Owing to the heterogeneity of the selected articles' theoretical frameworks and empirical methods, the analysis was descriptive in nature. First, the articles were analyzed in terms of the number and type of uncertainties addressed, to compile a comprehensive list of different uncertainties that receive the most attention. Articles were labeled with as many types of uncertainties as were identified in them. To provide a parsimonious categorization of uncertainty, Miller's (1992) classification and definition of different types of uncertainty that refers to 13 dimensions of uncertainty grouped into three main categories was applied.

The second phase of the analysis focused on identifying how uncertainty management approaches have been defined in the reviewed articles, and which approaches are most commonly applied by MNCs. Definitions derived from both Miller (1992) and Simangunsong et al. (2012) were used to group the identified approaches, which refer to two main methods of uncertainty management (reducing and coping), under which there are eight uncertainty management approaches.

In the final phase of analysis, the identified uncertainty dimensions and uncertainty management approaches were analyzed in terms of the capacity to add value to our understanding of MNCs' international decision-making. The review revealed several inconsistencies and debates among IB scholars about the impact of uncertainties on MNCs' decision-making and the determinants of MNC choices about uncertainty management approaches.

Case study

As in most qualitative studies, data collection and data analysis took place concurrently (Baxter & Jack, 2008). Similarly, in this study the researcher collected, organized and coded the data at the same time. All interviews were accurately recorded and transcribed (with 225 pgs. of transcription in total) by the researcher. Since interviews and analysis occurred in parallel, analysis started already during the transcription of the interviews. Such a data analysis was shaping the progress of the interviews and allowing the researcher to formulate the range of different questions to capture the variety of perspectives about uncertainty and its management in the post-acquisition integration.

Thematic analysis was chosen as the data analysis technique because it allows flexibility in interpreting the data and in approaching data more easily by sorting them into broad themes (Lincoln, 1998). Furthermore, this technique allows identifying patterns of meaning across data that provide an answer to the research question being addressed. Data analysis was organized in two main steps. The first step began with reading of the interview transcripts and making informal notes. The researcher did not have any preplanned systematic coding agenda. While continuing with the reading of the transcripts, the researcher started to observe connections between the noted themes in the interviews. The identification of the emerging themes assisted in the following steps of data analysis.

A number of key themes that emerged from the data related to uncertain and complex situations that integration managers reported they had experienced during the integration decision-making (with the number of issues varying between three to 14 per integration manager), various tensions that resulted from uncertainty, uncertainty management approaches, decision-making styles under uncertainty as well as decision-making activities at both individual- and team-levels. Also, uncertainty was coded in the analysis as both answers to interview questions of uncertainty and other answers that represented uncertainty.

To give some examples, integration managers were uncertain about the future strategy of the new organization, about the decision-making style of a merging partner and how decisions should be made in the future, about the long-term position of their subordinates, about their own competencies and roles during the integration process and their permanent jobs after the integration. The list was then re-grouped and coded to a comprehensive set of integration manager responses to the changes during the integration. Data reduction facilitated the creation of categories (Strauss & Corbin, 1998; Gioia et al., 2012) broad enough to capture different uncertainties, uncertainty management methods and their approaches. All the emerging themes and formed categories are discussed in more depth in the essays.

The output of the first step was a set of systematic initial coding, also called 1st order coding, which means arranging and coding themes into categories originated from the talk with the research participants (Charmaz, 2006; Corbin & Strauss, 1990). Coding is important since it helps to describe what is happening in the data and to define what it means (Charmaz, 2006). The names for the first-order themes were not primarily incorporated from the language of the interviewees (unlike in some other qualitative studies e.g., Corley & Gioia, 2004), but rather served to provide simple descriptors of commonly observed situational conditions in the data. For example, a set of different uncertainty management approaches were orderly coded from the raw data (quotes from the interviews, company visit, and excerpts from the companies' newsletters and webcast video).

During the second step, the researcher categorized the emerging themes into more abstract and robust descriptions that were observed in the data and constructed theoretical dimensions (Corley & Gioia, 2004). The so-called 2nd order concepts originate from the researcher's theoretically based interpretations and the participants' words at a higher level of abstraction (Charmaz, 2001). For example, for uncertainty management methods – "uncertainty reduction" and "uncertainty coping" – were adopted from the existing literature to create categories for analysis as well as to keep the consistency of the terms in the research on uncertainty. The researcher started to form thematic groups and topics out of those themes. Three key topics emerged.

First, when describing their integration work, most managers described issues that impeded their work and decisions. Integration managers still had to make decisions even when the future strategy was not clear, when the own future in the company was not defined, and when consequences of the decisions were hard to predict. When the researcher asked them to elaborate on the perceived uncertainties and decisions that needed to be made under those uncertainties, integration managers reflected on various decision-making models that needed to be adopted under a particular set of uncertainties. The research participants told about different decision-making styles and tactics when they tried to solve various uncertainties. It came through very clearly from the interviewees that the perceived uncertainty shaped their decision-making behavior. Thus, *the role of perceived uncertainty in integration managers' decision-making* became the first theme of this study.

The second topic that emerged in the interviews was *collaboration*, which is vital for decision-making, but not so commonly observed in the post-acquisition integration processes. However, the more interviews the researcher conducted, the more clearly collaboration emerged as important in the minds of the participants. The collected data illustrated that collaboration was used for different purposes such as uncertainty reduction and uncertainty coping. It came through rather strongly from the interviews that collaboration is significant in connection to decision-making from the perspective of the interviewees. Thus, exploration of how integration managers in the post-acquisition integration process used collaboration became one of the key topics in the second essay of this dissertation.

The observations about integration managers' perceived uncertainties and their methods to manage these uncertainties, made the researcher aware that integration managers at times operate as a team and make critical decisions in one of the most important phases on M&A. During the interviews, the researcher realized the importance of the ability of integration managers collaborating with each other. A number of integration managers talked about their concerns and frustrations about their integration work being undervalued. Thus, understanding how *integration managers make sense of their activities at individual- and team-levels* emerged as a third key theme and became the main topic for the third essay in this dissertation.

Exemplary illustration of how open coding and first-order coding was organized into key themes is provided in Table 7 below.

Table 7. Exemplary open coding, first-order coding and key themes

Open Coding: Work Stream Integration Managers from the Acquired Firm	Open Coding: Work Stream Integration Managers from the Buying Firm	Open Coding (combined)	First-Order Coding	Key Themes
-Future direction of a new company: strategy, structure; Timing of changes (when to do changes); -Finding the balance: way of doing business, decision-making, organizational culture fit; -"The best of both"; -Changing the brand and what comes with it; -The types of products offered in the future; -The customers' reaction: will they remain; -Who the decision-makers is and who takes the responsibility; -How the decisions should be communicated and how communication should be distributed; -Uncertainty on execution: new boss and a new team; -The content of new position is not defined ->not sure what the level of dedication to the integration process should be ("Am I doing this job for someone else?") -Lack of previous M&A related experience	Future direction of a new company: strategy, structure; -Finding the balance: way of doing business, decision-making, organizational culture fit; -"The best of both"; -Who the decision-makers is and who takes the responsibility; -Uncertainty on execution: new boss and a new team; How to integrate the acquired company; -The content of new position is not defined ->not sure if that is an attractive position in the future; -Legal aspects: certain processes took longer than expected because of the legislation	The source of uncertainty	Perception of uncertainty	The role of perceived uncertainty in integration managers' decision-making
-"Do we select the right people?" -Losing good employees; -Outcome of decision-making: by changing and integrating the acquired firm will the buying firm be able to sustain the best of what has been acquired? -Reaction of employees; -Own position in the new organization;	-Reaction of employees; -Reaction of the acquired firm on changes; -Own position in the new organization;	The outcome of the "future direction" uncertainty		

Open Coding: Work Stream Integration Managers from the Acquired Firm	**Open Coding: Work Stream Integration Managers from the Buying Firm**	**Open Coding (combined)**	**First-Order Coding**	**Key Themes**
-No guidance given on what to expect and how to behave during the change; -Selection and matching of integration managers was unclear, although successful; -The scope and the role of MMO is unclear; -The allocation and delegation of task from MMO to line managers; -Lack of information; -Unequal set of information; -The reliability of the data for decision-making; -Many roles, unclear roles;	-How to behave and adjust to different management styles; -The reliability of the data for decision-making	Integration process uncertainty		
Trust; -The type of a colleagues; -The colleagues' intention;	-Trust; -The type of a colleague;	Trust related uncertainties		
Frustration; -Restriction in actions	-Limited control	The outcome related uncertainty	Defining uncertainty	
-Known unknowns		Ignorance		
	-Feelings	Intuition		

3.5 Research quality

Quality evaluation criteria are constituted by particular philosophical conventions (Johnson et al., 2006, p. 133), yet it is often assumed that one size fits all (Piekkari et al., 2009). To avoid that, this study articulates contingent criteriology to enable different sets of evaluation criteria to be contingently deployed so that they fit the researcher's mode of engagement (Johnson et al., 2006). Criteriology is about applying the evaluation criteria that are appropriate to a particular work, given the author's paradigmatic positioning (Welch & Piekkari, 2017, p. 720).

While being positioned in the interpretive paradigm and adopting a subjectivist epistemology, this study does not aim to produce causal explanations, generalize the findings, or replicate the study in other different contexts (Lincoln, 1998). Instead, it is important for the study to reflect the phenomenon of interest and to reach its purpose. Hence, reflexivity, not objectivity, is the approach of this study. While objective knowledge claims to be unsituated, true any time and any place, reflexivity brings an awareness of the situatedness of scientific knowledge and an understanding of the researcher and research community from which knowledge has appeared (Hardy et al., 2001). In the research quality assessment of this dissertation, the researcher self-discloses values and biases, and reflects on her role in this study (Creswell & Miller, 2000).

It is important to acknowledge a wide diversity in qualitative research, which requires the researcher to draw on elements of quality that appear important and relevant to their own research (Guba & Lincoln, 1994; Symon & Cassell, 2012). To evaluate the quality of the research, this dissertation applies the following criteria: *credibility*, *transferability*, *dependability* and *confirmability* (Lincoln & Guba, 1985). These criteria reflect the underlying philosophical assumption of this dissertation and recognize the inherent subjectivities of observations (Welch & Piekkari, 2017). Interpretivists account for 'truth-likeness' of the research rather than provable 'truth'. Hence, evaluation of the research rests on whether or not the research data are realistic and whether or not representations and conclusions are believable (Lincoln & Guba, 1985).

Credibility in qualitative research corresponds to internal validity in quantitative studies. It builds the confidence that the research findings represent plausible information drawn from the participants' original data and have a correct interpretation of the participants' original views (Lincoln & Guba, 1985). The credibility of the dissertation was enhanced by a number of procedures such as member checking and peer debriefing. During the data analysis, the researcher was taking data and accounts back to participants for comment and review, thereby conducting the validity procedure known as member checking (Creswell & Miller, 2000). As part of the data analysis, the researcher identified the core concepts relevant for the research topic. Those concepts were coded and categorized. The categories either were taken from the literature or were generated from the data. During the analysis, the researcher was cycling back and forth between the data, methods and theory, taking key concepts to participants for comment, review and discussion. After the first round of interviews with the integration managers, the researcher spent two months reflecting on the data and making certain conclusions. Those conclusions were then discussed with the integration managers during the second round of interviews. It was very important for the researcher to check whether the information was understood correctly and, if necessarily, additional questions were asked to clarify expressions or statements.

The second procedure that the dissertation executed to establish credibility and to sustain the validity producers was peer debriefing, where someone familiar with the research phenomenon reviewed the data and research process (Creswell & Miller, 2000). Thus, the researcher was open when the researcher's own interpretations were challenged by thesis supervisors during the supervisory meetings and by other researchers and scholars in the field during workshops or scientific conferences.

Transferability in qualitative studies parallels external validity and generalizability in quantitative studies. In qualitative studies, transferability concerns the aspect of applicability (Lincoln & Guba, 1985). To ensure transferability, this dissertation provided a thick description of the participants and the research process so that the readers could assess whether the findings are transferable to the context of their research setting. Furthermore, the dissertation drew on company newsletters, a video from the key meeting, company visits and newspapers posts as a source to understand and clearly present the context of the research. In addition to the context, the dissertation provided a rich account of sample size, interview procedures and topics, changes in interview questions and excerpts from the interview guide.

Dependability in qualitative studies equals reliability and stability of results over time in quantitative research. To ensure dependability, qualitative studies include the aspect of consistency (Lincoln & Guba, 1985). To establish dependability of the research, this dissertation used audit trail procedures. This dissertation followed a clear, careful and detailed documentation on the data collection and analysis processes allowing the researcher to recall any data at any point of the research process. This validity procedure in the literature is known as audit trail (Creswell

& Miller, 2000). At the beginning of each interview, the researcher developed a checklist of topics to cover during the interviews to ensure that a participant covered the relevant aspect of the research topic, although the research participants were also invited to talk freely without any detailed instructions from the researcher to avoid leading them to certain topics or conclusions. After each interview, the researcher spent time reflecting on key observations and topics that emerged during the interview. Furthermore, it was also important for the researcher to establish a proper chain of events and evidence throughout the research process. All interviews were accurately recorded and transcribed by the researcher.

Confirmability in qualitative studies corresponds to objectivity in quantitative studies. However, qualitative studies do not aim for objectivity. Instead, to achieve confirmability, qualitative studies show internal consistency of conclusions and support them with data confirming that the findings are not figments of the researcher's imagination, but clearly derived from the data (Lincoln, 1998). To ensure confirmability, the dissertation used such procedures as transparency and data triangulation. High transparency helped the researcher to be clear about how she engaged with a phenomenon and showed the evidence for her conclusions. Table 8 refers to data presentation as one important example of confirmability in relation to thematic analysis and data reduction. Thus, it was very important for the researcher to remain transparent not only in describing the data sources and analysis thoroughly, but also in illustrating how the insights were discovered and transformed into findings so that this whole process would be understandable to an outside reader.

Another procedure that the researcher used to ensure confirmability and to establish interpretative meanings for the research phenomenon from the actors' perspective was data triangulation. Traditionally, triangulation is understood as a search for convergence among multiple sources of data. The rationale for advocating multiple data sources differs among paradigms. The argument that multiple data sources constitute convergence on a single explanation has been challenged by interpretivists (Stake, 2000). For interpretivists triangulation serves to clarify meaning through the identification of different perspectives about the phenomenon. Thus, the outcome of a case study may not be a single, convergent explanation but rather the uncovering of diverse meanings held by the people within the case (Stake, 2000). To achieve that, the researcher asked the integration managers from both buying and acquired firms to openly describe their decision-making processes during post-acquisition integration and the types of uncertainty they faced while making these decisions in their own words. The semi-structured interviews allowed the participants to freely construct their interpretative meanings for the integration work they did.

Table 8. Exemplary extract from coding on uncertainty management

Representative Quotes for First-Order Codes	**First-Order Concepts**	**Second-Order Concepts**	**Theoretical Dimension**
"Well, both uncertainty related to work and of course uncertainty related to myself. So, for me, I have had a good experience. I didn't worry so much. But for the team, will we find good positions for these people…But even if I decided to trust the team, I don't know them so well, so it was very hard to be completely open. I would say, I didn't understand uncertainty a year ago, but I see it now. And I also see how much easier life is today than it looked one year ago…It was not so stable." (Integration manager from acquired firm, interview)	Rely on managerial experience;	Acquisition experience and company-specific experience	Uncertainty reduction

4 SUMMARY OF THE ESSAYS

This chapter provides a short summary of three essays that are presented in full in the second part of the dissertation. The chapter highlights the background and research problems of the essays, their research aims and empirical basis as well as key findings. Key scientific contributions of each essay are briefly summarized.

4.1 Essay 1: "Uncertainty in decision-making: A review of the international business literature"

Uncertainty is a key contextual factor that affects the decision-making of multinational corporations (MNCs) on many types of international operation. However, the variety of ways in which uncertainty has been defined and studied in the international business (IB) literature, has contributed to a fragmented view of MNCs behavior and of the role of uncertainty in international decision-making. The main purpose of the essay is to offer an in-depth comprehensive analysis of the ways in which uncertainty is treated and managed in decision-making in the theoretical and empirical IB literature and to suggest areas for future research. In particular, the essay analyzes the articles in terms of the type of uncertainties addressed to compile a comprehensive list of different uncertainties that receive the most attention. Also, the essay focuses on identifying how uncertainty management approaches have been defined in the articles, and which approaches are most commonly applied by MNCs. Furthermore, the essay analyzes the identified uncertainty dimensions and uncertainty management approaches in terms of the capacity to add value to our understanding of MNCs' international decision-making. Lastly, the essay proposes a future research agenda.

The current essay adopts the systematic literature review method to offer reliable findings for the evaluation and interpretation of previous research relevant to a particular theme of interest. A final total of 114 articles were considered for the review.

The review revealed that uncertainties in the environmental uncertainty category have attracted the greatest research attention both in regard to MNC strategic and operational decision-making (e.g., Agarwal & Ramaswami, 1992; Brouthers & Dikova, 2010). Several other studies have directed attention on the impact of industry uncertainties (Elango & Sambharya, 2004; Gray, 1994) as well as firm uncertainty on an MNCs' identification and perception of various other dimensions of uncertainties (Brouthers, 1995). Although IB scholars acknowledge the existence of different categories of uncertainty, studies investigating the impact of uncertainty dimensions within one category dominate in the IB field.

The literature review also discovered that uncertainty can be reduced through information gathering, proactive collaboration/cooperation and networking (e.g., Brouthers et al., 2008; Ji & Dimitratos, 2013) In addition, the reviewed IB literature identified five approaches to coping with uncertainty: flexibility, imitation, collaboration/cooperation, control, and uncertainty avoidance (e.g., Chiao et al., 2010; Gaba et al., 2002).

Furthermore, the reviewed literature exposed that one of the factors that have a particular influence on the MNC's choice of a particular uncertainty management approach is the specific individual decision-makers within the MNC. Therefore, this essay scrutinizes individual decision-makers and identifies the following characteristics of decision-makers: previous decision-making experience, tolerance of ambiguity, individualistic/collectivistic orientation, hierarchical position in the organization, decision-making orientation.

The essay contributes to the IB literature in the following three ways. First, it addresses the inconsistent conceptualization and measurement of uncertainty by organizing and synthesizing the dimensions of uncertainty into an integrative framework. Second, the essay presents arguments for why being more consistent in the use of concepts and measures of uncertainty, using a wider spectrum of different kinds of uncertainty, and integrating the characteristics of the key individual decision-makers, would advance the field and add significantly to the predictive validity of theoretical models. Finally, the essay contributes to the IB literature by proposing an agenda for future research based on identified three key observations about the main limitations of existing research in the IB field: inconsistency in the conceptualization and measurement of uncertainty, lack of diversity regarding uncertainty dimensions within single studies, and the downplayed role of individual decision-makers.

4.2 Essay 2: "Integration managers' approaches to uncertainty management in M&A"

This essay identifies how integration managers from both firms deal with uncertainties in post-acquisition integration. Uncertainty is an essential part of any decision-making and, if managed properly, can lead to effective decisions that shape the performance of the firm (Certo et al., 2008). The existing literature tends to look at M&A and post-acquisition integration as strategies and outcomes, often leaving the underlying practices of integration managers such as uncertainty management underexplored (Angwin et al., 2015; Brueller et al., 2016). Furthermore, among the existing research, most of the data come from the point of view of the buyer (Graebner, 2004), which sometimes mistakenly implies that the buyer is the only decision-maker of importance (Reus et al., 2016) and that being acquired is a sign of weakness and even failure (Graebner & Eisenhardt, 2004). To address these gaps, this essay, first, examines the post-acquisition integration process with a focus on how integration managers make decisions amidst conflicting demands for coping with and reducing uncertainty. Second, this essay opens up the role integration managers from the acquired firm have and demonstrates how they collaborate and influence the post-acquisition integration process.

This study integrates a syndicate view and takes a fresh and alternative view on corporate governance and decision-making in M&A. The integrated syndicate view helps to explore the rationale that seems to be driving individual managers' behavior.

This essay uses a single in-depth case study on integration managers' involvement in the real-time integration decisions of an international M&A between two Nordic multinational corporations (MNCs). Along with multiple data sources, the findings are also based on interviews with 18 integration managers, eight of whom represent the acquired side.

The findings revealed that as observed among integration managers, the nature of uncertainty is many kinds and integration managers experienced uncertainty related to future strategy, integration process, new organizational culture, future position as well as integration managers' nomination process and own role during integration. The collected data identified that integration managers from both acquired and buying firms were observed to use various uncertainty reduction and uncertainty coping methods to manage uncertainties during post-acquisition integration. Uncertainty reduction comprised efforts of integration managers to take control over the situation, establish stability and minimize uncertainty. In terms of uncertainty coping, integration managers used this method to increase decision-making flexibility. The findings of this research suggest that integration managers experienced three key tensions in uncertainty management: the inherent complexity of "best practices", institutional leadership, and perceive justice. To address them integration managers collaborated with each other, an activity related to both reduction and coping. In practice that meant that they had to balance between extraction and application of tacit knowledge about own firm and exploration of new practices for a newly merged firm. In terms of the role of the integration managers' from acquired firm, the findings of this research suggest that they were active participants and influencers in the way post-acquisition integration decision-making was evolving.

This paper makes two main contributions. First, it enhances our understanding about how integration managers manage uncertainty by using two different methods: uncertainty reduction and uncertainty coping. This paper adopts a fresh syndicate view and challenges the leading notion of agency theory that integration managers act with self-interest, which is in conflict with the buyer's interest (Graebner & Eisenhardt, 2004; Meyer, 2006). Unlike agency theory suggests, this paper reveals that integration managers have multidimensional interests to influence post-acquisition integration process when they manage uncertainty. Moreover, collaboration between integration managers of both buying and acquired firms is found to be crucial for success. The second key contribution, contrary to existing perceptions about integration managers from the acquired firm and that they are passive 'recipients' in post-acquisition integration, the findings from this paper suggest that they are active and co-creating agents that contribute to the success of the process.

4.3 Essay 3: "Post-acquisition integration as a decision-making process: Individual-level sensegiving and team-level sensemaking"

This essay explores the decision-making processes and activities integration managers engage in, and through which sensegiving and sensemaking happens during post-acquisition integration. Quite often integration managers and integration teams are positioned at the boundaries between top management and the rest of the merging organization where their role might include giving meaning to new strategy and structure, securing the transfer of key knowledge and interpreting various unanticipated events that emerge during post-acquisition integration (Teerikangas & Birollo, 2018). Thus, they tend to play a very important but highly undervalued sensemaking and sensegiving role that might shape the course of the post-acquisition integration process (Meyer, 2006; Vaara, 2003). Furthermore, integration happens across different levels in the post-acquisition phase. Thus, although integration managers are important actors in post-acquisition integration process, most of the decisions are made in integration teams. However, our empirical understanding of how decision-making processes and sensemaking activities at the integration manager- and integration team-levels take place needs to be further deepened. Accordingly, to understand integration managers' roles as the influencers in the post-acquisition integration process, this essay explores the sensemaking and sensegiving activities of integration managers during the post-acquisition integration phase as they make decisions under uncertainty in integration teams and build the link between individual- and team-level decision-making.

This essay adopts a sensemaking perspective. In general, sensemaking accounts for how individuals interpret ongoing events and how these interpretations affect their responses to these events (Gertsen & Søderberg, 2000). Since many papers on M&A integration assume that acquiring firm's top managers dominate the integration, applying sensemaking as a theoretical perspective allows for challenging this assumption and approaching post-acquisition integration as a process of negotiations among various actors, with a focus on compromise and collective sensemaking (Steigenberger, 2016).

This essay is based on a single in-depth qualitative case study that explores integration managers' real-time decisions during the post-acquisition integration phase between two Nordic multinational corporations (MNCs). The unique contribution of this research method lies in its ability to uncover a phenomenon in its natural environment and associated contextual processes, including its evolvement over time (Corley & Gioia, 2004; Langley, 1999; Langley & Abdallah, 2011). This essay is based on multiple data sources including 20 semi-structured interviews with 18 integration managers.

The findings of this essay reveal integration managers' sensemaking and sensegiving activities observed in three exemplary decisions: building strategic rationale, establishing desired level of integration, and appointing line managers. Interpretation of the decision targets began at the individual level. Individual sensegiving activities triggered different responses at the team level, which were revealed through various sensemaking activities. These findings demonstrate sequential influences between individual-level and team-level activities of integration managers in the post-acquisition integration and illustrate the pattern of the integration decision-making process as primarily a bottom-up process, which depicts the key performing role of integration managers at both individual- and team-level. Predefined with the individual integration managers' perceptions, yet, the key sensemaking activities were conducted at the team level with important implications for the way post-acquisition integration decision-making processes evolved.

Promoting greater understanding of decision-making processes at individual- and team-levels in post-acquisition integration, this essay makes two significant contributions. First, by applying the sensemaking perspective, this study was able to shed light on how integration managers give meaning to integration targets, how they react to these targets and how they communicate about the targets to others in the integrating teams. Second, this paper challenges the conventional understanding about the submissive roles that integration managers play during post-acquisition integration, and contributes to the existing literature by adding a new and different understanding of the integration managers' roles that reveals new ways of how they can make an influence at different levels during post-acquisition integration process.

5 DISCUSSION AND CONCLUSION

In this chapter I integrate the findings of this dissertation to answer the main research questions posed at the outset and discuss them in light of previous research. I then present the theoretical contributions and practical implications of this dissertation, and conclude with the limitations and suggestions for future research. Figure 5 illustrates the integrated empirical findings in this dissertation. The findings within this illustration are indicated in italics in the sections that follow.

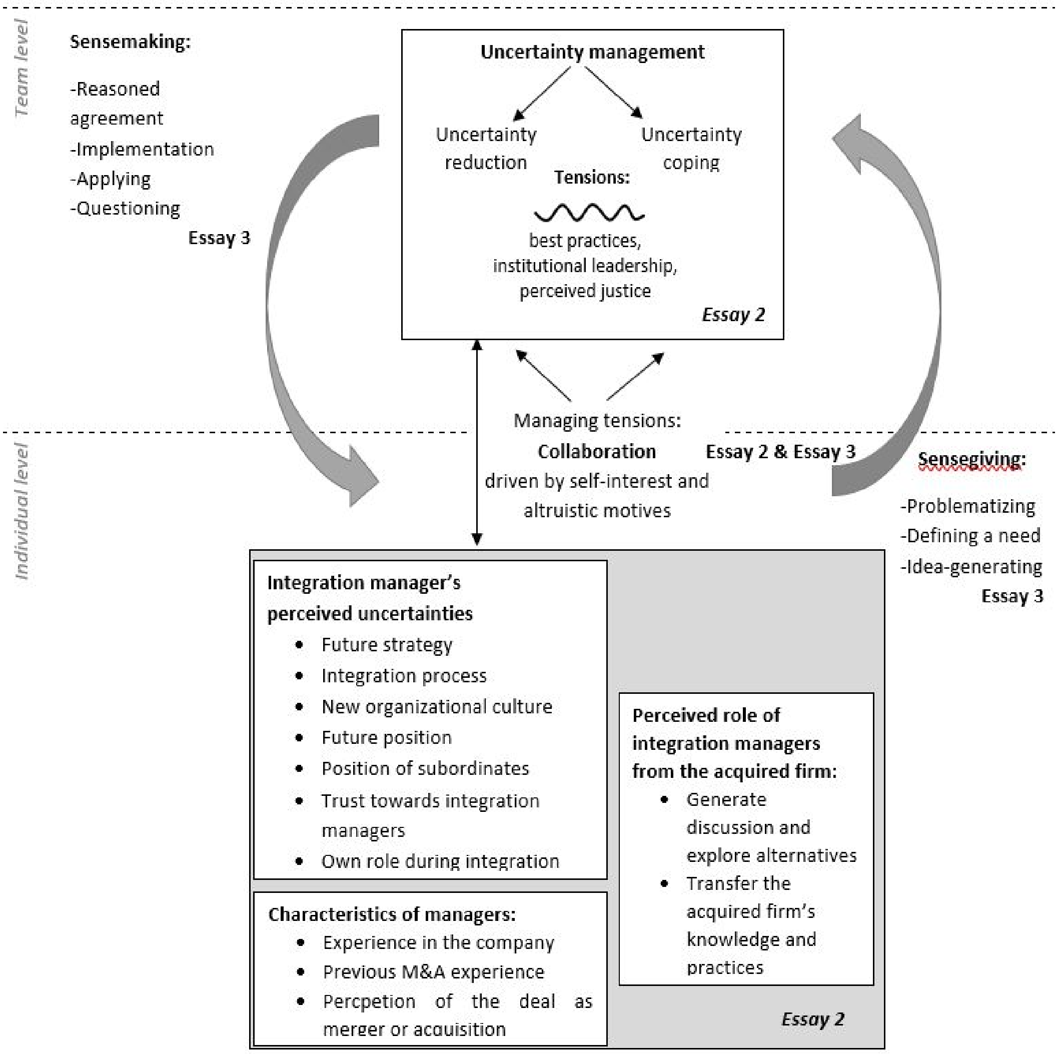

Figure 5. Summary of the dissertation's main empirical findings

5.1 Theoretical contributions

5.1.1 Uncertainties in post-acquisition integration decision-making

The first research question of this dissertation was: *What kinds of uncertainty do integration managers perceive in their post-acquisition integration decision-making?*

Uncertainty has a significant impact on decision-making in MNCs. This notwithstanding we still need to increase our understanding about the different kinds of uncertainty that managers in MNCs face and how they shape decision-making (Delios & Henisz, 2003a; Di Gregorio, 2005; Milliken, 1987). Essay 1 provides a comprehensive overview of existing knowledge on uncertainty in the IB field and a detailed categorization of different uncertainties.

The findings of Essay 2 shed light on a number of different types of uncertainties that integration managers perceive during the post-acquisition integration process. They suggest that integration managers experience uncertainties related to *future strategy*, *integration process*, *new organizational culture*, *own future position* and *position of subordinates after integration*, *trust towards integration managers* as well as *uncertainty about own role during integration*. The number of perceived uncertainties varies between one or two uncertainties to the complete spectrum of presented uncertainties per individual integration manager. Although existing studies have occasionally acknowledged uncertainties and ambiguities that integration managers are likely to face during post-acquisition integration (Ashkens et al., 1998; Ashkenas & Francis, 2000; Jemison & Sitkin, 1986; Meyer, 2006; Risberg, 2001; Teerikangas et al., 2011), the empirical findings of Essay 2 provide a more comprehensive picture of different uncertainties perceived by integration managers and draw attention to the heterogeneity of those perceptions.

Furthermore, the adoption of an overarching contingency perspective in Essay 1 serves to identify various contingencies as well as their inter-relationships that are likely to impact MNC decision-making (Lawrence & Lorsch, 1967). The contingency view was useful in the review since it helped (a) to identify that the MNCs make decisions in a context that is represented by different dimensions of uncertainty, both external and internal, which it responds to in different ways, (b) to emphasize the under-valued role of the individual decision-maker and team setting within the research domains, and (c) to identify how the characteristics of individual decision-makers influence both their perceptions of uncertainty and the MNC's approaches to uncertainty management.

The reviewed IB literature in Essay 1 showed that previous decision-making experience can have a significant impact on uncertainty perception and the desire for control (e.g., Makhija & Stewart, 2002; Whitelock & Jobber, 2004). More specifically, the less managerial experience a manager had, the higher the level of perceived uncertainty (Brouthers, 1995) and the higher the need for collaborative uncertainty management approaches (Makhija & Stewart, 2002). A similar tendency was revealed in the empirical findings of Essay 2. Although only a few integration managers from either firm had previous experience in acquisition, most had experience in business transfers or mergers within one company. Naturally, integration managers have a tendency to compare the current integration process with previous ones, identifying and taking control over elements that proved important previously.

The finding on differences in the characteristics of individual managers in Essay 1 provides an alternative explanation for why MNCs differ in terms of the decisions they make, and how they arrive there. Existing research indicates that firms differ in the ways they make decisions not only because they have different resources and industry profiles, but also because they have different risk and uncertainty perceptions (Back, 2015; Kiss et al., 2013). Still, the majority of existing work in the area of IB treats individuals in MNCs as homogeneous, or as a black box (Minbaeva, 2016). A more in-depth examination of the way in which individual managers in MNCs perceive uncertainties, helps build a more nuanced set of explanations for heterogeneity in MNC decision-making.

In relation to the first research question, this dissertation contributes to existing IB and IM&A literatures by extending our current understanding of different kinds of uncertainty that emerge in MNC decision-making processes (Essay 1 and Essay 2). By organizing and synthesizing the dimensions of uncertainty into an integrative framework, it addresses the inconsistent conceptualization and measurement of uncertainty in previous research (Essay 1).

The findings of this dissertation thus contribute to the discussion in existing IB research by shedding light on the influence of contextual factors on MNC operations and suggest a need for IB research to develop new theoretical frameworks (Buckley, 2002; Buckley, 2020; Buckley & Lessard, 2005; Cheng et al., 2009; Gentile-Lüdecke & Lundan, 2013), also considering the increased complexity of the context in which MNCs operate (Griffith et al., 2008). A deeper understanding of the contextual processes – including uncertainty and its management – that influence MNC operations is a prerequisite for that. To this end, this dissertation presents a research agenda that offers suggestions on how future research might address the three key limitations identified: inconsistency in the conceptualization and measurement of uncertainty, lack of diversity regarding the dimensions of uncertainty included in single studies, and the downplaying of individual decision-makers.

The empirical part of this research in Essay 2 illustrates that post-acquisition integration decision-making depends on myriad influences that reside at different levels. In particular, the kinds of uncertainty perceived by integration managers shape their post-acquisition decision-making. The role of integration managers and integration teams in the way they perceive and manage these uncertainties is fundamental for understanding how the post-acquisition integration process works. While existing literature defines integration managers as either facilitators of change (Birollo & Teerikangas, 2019; Graebner, 2004) or impediments to post-acquisition integration success (Meyer, 2006), this dissertation draws more attention to the pertinence of the context in which integration managers operate and, more specifically, the kinds of uncertainty they perceive as well as their individual characteristics that influence the way the post-acquisition integration process evolves.

In the light of the above, this dissertation (Essay 2) contributes to IM&A literature by offering an uncertainty perspective, particularly as regards integration managers. Prior IM&A research has primarily focused on what integration managers do and their influence on acquisition outcomes, while this thesis is focused on the experience of uncertainty.

5.1.2 Integration managers' management of uncertainties

The second research question posed in this dissertation was: *How do integration managers balance the conflicting demands of coping with, and reducing uncertainty in the post-acquisition integration process?*

Perceived uncertainties and individual characteristics of integration managers determine their choice of uncertainty management method. As the findings of Essay 2 illustrate, integration managers use uncertainty reduction and uncertainty coping methods to manage the uncertainties that emerged during post-acquisition integration. Uncertainty reduction comprised efforts to take control over the situation, establish stability and minimize uncertainty, and included *information gathering*, implementing *centralized planning*, making *decision based on facts and evidence,* drawing on *acquisition experience and company-specific experience* and *collaborating*. Integration managers used coping to increase decision-making flexibility when there were uncertainties that could not be eliminated or minimized. Three approaches for coping were observed in this research: *adaptive decision-making*, *proactive decision-making* and *collaboration*. The variety of approaches related to both coping and reduction, and illustrated a complex set of underlying individual actions and interactions that make the realization of the post-acquisition integration process possible.

The large amount of uncertainties significantly complicates MNC decision-making. While some uncertainties can be identified and minimized, identifying others is not always a straightforward process, which makes it even more difficult to predict which uncertainty management method may be most effective. As the findings of this dissertation show (Essay 1 and Essay 2), the choice of uncertainty management methods is never simple and direct, but rather a complex and dynamic process that involves numerous unknown elements and requires extensive collaboration between the managers involved. Consequently, the findings of this study serve to challenge and nuance the existing assumptions in the IB literature that managers are rational decision-makers who make decisions based on accurate perceptions of situational conditions that are considered systematically in an analytic way (Atuahene-Gima & Li, 2004; Ji & Dimitratos, 2013). The presented critique to rational decision-making connects to recent findings on intuition in making complex decisions (Sinclair & Ashkanasy, 2005; Grant et al., 2020).

These findings support the theoretical contribution of this dissertation in regard to the second research questions. By shedding light on the role of individual decision-makers and the types of uncertainty they perceive, as well as the kinds of uncertainty management approaches they use while making decisions in the context of post-acquisition integration, this dissertation challenges our understanding of the post-acquisition integration process as a controllable process. Unlike what the dominant view in the literature suggests, IM&A integration cannot be fully controlled via various management practices, nor can uncertainty be fully removed or reduced.

Previous literature has drawn on agency theory to suggest that integration managers act through a self-interest that is in conflict with the buyer's interest (Graebner & Eisenhardt, 2004; Meyer, 2006). Adopting a syndicate view that acknowledges that integration managers have both altruistic and self-interests, this dissertation (Essay 2) challenges the tenets of agency theory, showing that integration managers are likely to have a multitude of motives that guide their choice of uncertainty management approach. The factors that contributed to integration managers' promotion of self-interest in their decision-making was critical, yet their altruistic motives were necessary for a smooth integration. Although integration managers were concerned about retaining their job and seniority in the organizational hierarchy, many integration managers were also concerned about the prosperity of their firm after integration and were choosing uncertainty management methods that would foster that. From the perspective of uncertainty management in post-acquisition decision-making, the syndicate view thus shifts the focus from traditional control and ratification of decisions (Fama & Jensen, 1983) to broader issues of collaboration where the different voices of integration managers are heeded.

While most existing IM&A research views post-acquisition integration as a linear process controlled by integration managers (from buying firm) in their self-interest (Gomes et al., 2013; Haspeslagh & Jemison, 1991; Lasserre, 2003), there are good reasons to suggest an alternative view. The variety of different uncertainty management methods identified in this research highlights the limitations of established views on controllability and stresses that post-acquisition integration is a more complex and dynamic process than generally assumed (Essay 2 and Essay 3).

Theoretically, there is a need for theory, or a theoretical perspective, that accommodates a more collaborative view that supports uncertainty coping as a goal in addition to uncertainty reduction. The syndicate view offers this alternative perspective and presents, as shown in Essay 2, a useful tool for understanding the uncertainty management of integration managers in the context of IM&A. In particular, it identifies the key motives of the decisions made by integration managers. Furthermore, integration managers' preferences for uncertainty management methods alternate between uncertainty reduction and coping, rather than the simultaneous application of those methods. The nature of the existing findings on the allocation of resources between integration and autonomy decision illustrates that this decision-making process is primarily static (Bauer & Matzler, 2014; Packard & Clark, 2020; Zaheer et al., 2013). The findings of this dissertation, however, illustrate that integration decision-making does not necessarily signify control and autonomy at the same time. It could also mean a process of constant collaboration leading to switching between uncertainty reduction and uncertainty coping.

5.1.3 The individual integration manager and team-level decision-making

The third research question of the dissertation was: *How do integration managers, including those from the acquired firm, influence decisions made in integration teams?*

Uncertainty management in the IM&A context can be viewed as the managing of tensions. In Essay 2 three key tensions emerged, namely the inherent complexity of *"best practices"*, *institutional leadership*, and *perceived justice*. The application of sensemaking and sensegiving presents one useful theoretical approach for shedding light on how integration managers manage these tensions. To address these tensions, integration managers used collaboration, which they defined as 'working closely together and doing something together'. For collaboration to occur, it was important for the integration managers to acknowledge the fact that they were interdependent when defining and managing tensions.

The sensemaking and sensegiving perspective allowed for a more in-depth understanding of how uncertainty management took place at individual and team-levels. It uncovered tensions felt by others as well as the internal tensions that integration managers were facing and how that influenced their perceptions and actions. As the findings of Essay 3 show, interpretation of the decision targets and sensegiving began at the individual level. Although visioning started with the executives, it was integration managers who gave meaning to ambiguous integration targets, which depicts their key performance role either at the individual or team level. At the individual level, integration managers gave sense to the set goals through such activities as *problematizing*, *defining a need* or *idea generation* (Figure 4). When individual integration managers' interpretations were accepted at the work task level, sensemaking took place through activities such as *reasoned agreement*, *implementation*, *applying the agreed terms into practice*. However, those activities were also challenged through *collaboration* between integration managers who sought to identify why certain decisions did not progress at work task level as agreed or *questioned* the decisions' alignment with the set goals. Lastly, the sensemaking activity of the integration managers from the merger management team was an ongoing process of communication and presenting the big picture of the integration.

Such a strong emphasis on collaboration could perhaps be interpreted as context dependent. The integration in this research took place between companies in two Nordic countries and the decision-making style of Nordic organizations is characterized as, among other things, informal, personal-contacts oriented, and consensus-driven (Hofstede, 1980). Furthermore, as noted earlier, the type of integration in this case study was symbiotic, requiring both a high degree of integration and a high degree of autonomy in order to succeed. The literature recommends that successful management of symbiotic integration requires a delay in the integration process, providing an opportunity for mutual learning and the establishment of trust between the two organizations before the integration occurs (Graebner, 2004). The applied sensemaking and sensegiving perspectives acknowledge both the control and collaboration components of uncertainty management.

In light of the above findings the following contributions emerge in regard to the third research question. Even in the context of a well-planned and organized post-acquisition integration process, there are several socio-political concerns that are perceived differently by individual integration managers. This dissertation elucidates how individual integration managers give sense to top managers' integration targets, thus contributing to the construction of norms in the unfolding post-acquisition integration decision-making. In particular, the findings of Essay 3 illustrate the significant role of sensebreaking as a means to challenge and problematize the norms set by the top management and to promote new meanings. Integration managers from the acquired firm were particularly active in this role. The importance of sensebreaking has been highlighted in other fields of science (e.g., Maitlis & Lawrence, 2007; Maitland & Sammartino, 2015b) and, with a few exceptions (e.g., Monin et al., 2013), has been largely under-researched in the M&A context.

Sensemaking activities were conducted at the team level and were crucial in determining whether the meanings of individual sensegiving were eventually enacted. This dissertation reveals the various ways in which acceptance of the decisions, resistance to them, and also distancing from them shaped the post-acquisition integration process. It is widely accepted that people react differently based on their organizational identity (Marmenout, 2010). It is also known that variance in managerial reactions blurs across organizational boundaries over time (Monin et al., 2013). Nevertheless, this dissertation indicates that organizational sensemaking activities in the post-acquisition integration phase are most intense at the work task level, where individual integration managers from both firms first meet to plan and make collective decisions.

In contrast to the existing understanding of the role of integration managers as mere executors of the executives' targets during post-acquisition integration, this dissertation observed that the role of integration managers is highly significant. They can shape the post-acquisition integration process through individual problematization and idea generation, or by shaping the shared meanings and calls for actions at the team level. The observations of integration managers' sensegiving and sensemaking processes highlighted in the dissertation deepen our understanding of the dynamics of post-acquisition integration. Existing studies on cultural dynamics, identity, and justice formation illustrate a strong correlation between managerial actions and organizational responses in post-acquisition integration (Clark et al., 2010; Monin et al., 2013; Vaara & Tienari, 2011). This study expands existing knowledge by exploring how post-acquisition decisions evolve with important implications for the course of post-acquisition integration. Accordingly, this research contributes to IM&A research and addresses a need in existing research to better understand the post-acquisition reality (Graebner et al., 2017; Haspeslagh & Jemison, 1991) by providing a detailed visualization of the very essence of decision-making processes during post-acquisition integration. The research findings relate to the current discussion in the IM&A literature about the determinants of acquisition success and value generation (e.g., Angwin, 2007). The detailed, multi-level account of post-acquisition integration decision-making presented in this dissertation illustrates the significance of the role of integration managers, which has so far largely been neglected.

Furthermore, the dissertation empirically reveals the influential role of the integration managers from the acquired firm when seeking to both sustain the value of the acquired firm and achieve the mutually set goal in the newly integrated organization. The application of both the syndicate view (in Essay 2) and the sensemaking and sensegiving perspective (in Essay 3) made it possible to illustrate the importance of their role as co-creators and co-producers of value-added. Unlike the underlying assumption in the existing literature that the buying firm imposes its knowledge on the target firm and seldom considers the acquired firm's offer (Balogun et al., 2005; Chreim & Tafaghod, 2012; Steigenberger, 2016), the findings in this dissertation suggest that integration managers were not afraid to adopt collaborative approaches particularly in terms of identification of uncertainty and choice of uncertainty management approach. This makes a significant contribution to the IM&A literature and emphasizes that the post-acquisition integration process could also be viewed as on-going collaboration between integration managers from both the acquired and buying firm that is shaped by considerations of long-term fit and where integration managers from the acquired firm should be treated as active influencers rather than passive cogs in the flow of predetermined events.

Table 9 below summarizes the key findings and contributions of the essays to the IB and IM&A literatures.

Table 9. Summary of the key findings and contributions

	Key Findings	Contribution to IB	Contribution to IM&A
Essay 1	1) Identifies that the MNCs make decisions in a context that is represented by different dimensions of uncertainty, 2) Emphasizes the under-valued role of the individual decision-maker and team setting, 3) Identifies how the characteristics of individual decision-makers influence both their perceptions of uncertainty and the MNC's approaches to uncertainty management.	1) Provides comprehensive overview of existing knowledge on uncertainty in IB, 2) Provides detailed categorization of different uncertainties, 3) Proposes an agenda for future research based on the identified limitations in the IB literature: inconsistency in the conceptualization and measurement of uncertainty, lack of diversity regarding uncertainty dimensions within single studies, and the downplayed role of individual decision-makers.	-
Essay 2	1) Discovers that integration managers experience uncertainties related to future strategy, integration process, new organizational culture, own future position and position of subordinates after integration, trust towards integration managers and uncertainty about own role during integration, 2) Illustrates that integration managers from both acquired and buying firms use various uncertainty reduction and uncertainty coping methods to manage uncertainties during post-acquisition integration, 3) Identifies that integration managers use collaboration as the method to address tensions in uncertainty management, 4) Illustrates the role of integration managers from acquired firm as active participants and influencers.	1) Discovers the pertinence of the context (i.e., IM&A) in which managers (i.e., integration managers) operate and the kinds of uncertainty they perceive in this context, 2) Identifies the individual characteristics of the managers (i.e., integration managers) that influence the way their decision-making evolves.	1) Offers uncertainty perspective to IM&A by focusing on integration managers' experience of uncertainty, 2) Challenges our understanding of the post-acquisition process as a controllable process, 3) Shifts the focus from traditional control of decisions to broader issues of collaboration.

	Key Findings	Contribution to IB	Contribution to IM&A
Essay 3	1) Reveals integration managers' sensemaking and sensegiving activities, 2) Shows how individual sensegiving activities trigger different responses at the team level, which are reveled through various sensemaking activities, 3) Illustrates that predefined with the individual integration managers' perceptions, the key sensemaking activities are conducted at the team level with important implications for the further evolvement of the post-acquisition integration.	1) Discovers the peculiarities of the context, i.e. Nordic organizations.	1) Offers a detailed visualization of the very essence of decision-making processes during post-acquisition integration as perceived by integration managers individually and in teams; 2) Reveals the influential role of integration managers and, in particular, integration managers from the acquired firm in how meaning is given to the ambiguous integration targets.

5.2 Practical implications

The findings of the three essays also have important implications for practitioners who plan, or are in the process of, mergers and acquisitions and are experiencing uncertainties as a result of that. Rather than discussing success factors, this dissertation emphasizes the challenges of the post-acquisition integration process by focusing on the importance of understanding the individual integration managers' differing perceptions of uncertainties and how these uncertainties and their management shape the decision-making of these integration managers.

The dissertation underlines that uncertainties are a key feature of the post-acquisition integration process. Although integration managers are leading the post-acquisition integration process, they are not usually trained for the uncertainties they are likely to face. For example, in the current case integration managers were at times appointed to lead the integration without a clear designation of their roles as integration managers and ended up leading an integration process without a clear understanding of what was expected from them and what the scope of their responsibilities were. Simultaneously, integration managers might experience the pressure of having too many responsibilities and, thus, the allocation of their resources and attention to all these roles may constitute a source of stress and pressure. Furthermore, integration managers must be prepared to make integration related decisions such as creating structures and appointing new line managers without knowing the future strategy of the new organization. This decision-making process is likely to be accompanied by a lack of clear understanding of the tacit knowledge and organizational culture practiced in the organization of the integrating partner, and further likely to be replenished with integration managers' uncertainty related to their own position and the position of subordinates in a new organization. Hence, awareness about these potential uncertainties is important. Forewarned is forearmed.

This dissertation explicates uncertainty reduction methods, such as information gathering, centralized planning, evidence-based decision-making, experience-based decision-making and collaboration, and uncertainty coping methods, such as adaptive decision-making, proactive decision-making and collaboration. The application of these methods depends on the amount and types of uncertainty that integration managers perceive. The balancing of these methods is considered to be the ultimate goal through which the balance between control and autonomy is achieved. To achieve this balance, practitioners should consider costs and benefits of reducing, sustaining and increasing uncertainty in the integration process. To operate successfully, and not just survive in times of change, integration managers will benefit more from actively trying out different uncertainty management methods. Passive actions are less attractive in the long-term, because they are primarily shaped by external forces acting for their own purposes, neglecting the interests of integration managers.

The explored case shows that integration managers need to make tough decisions, and manage various tensions, as they grapple with managing uncertainty. Post-acquisition integration requires good knowledge of how various parts of the merging firms work together. Nevertheless, constructing a big picture might be problematic for integration managers. Hence, continuous collaboration with other integration managers is recommended, and establishing effective relationships within and across integration workstreams.

It is through post-acquisition integration that the value and synergy of acquisition is achieved. It is in this phase, integration managers from acquired firm have a crucial role in leveraging the key knowledge and practices of the acquired firm. A key message in this dissertation is that integration managers from both the buying and the acquired firm should be involved in integration related decision-making from the very beginning. In practice, this means that integration managers from the buying firm need to share information and responsibilities of the integration with their partners from the acquired firm.

5.3 Limitations and future research

There are a number of limitations to this dissertation that lead to specific suggestions for future research. Overall, this dissertation points to a need to further research individual managers and their approaches to uncertainty management in a context of both international mergers and acquisitions as well as in other contexts.

First, while this dissertation explores integration managers' decision-making processes under uncertainty, it does not look at the success or failure of the integration. Nevertheless, this limitation is not considered a significant threat to this research, which is grounded one step prior to the decision-making outcomes and seeks to expose the different uncertainties and uncertainty management methods as they evolve. To understand what works and what does not, we need to understand what integration managers do during the integration decision-making processes. Future studies would benefit from a longitudinal approach in order to fully grasp the nature of integration managers' decision-making during post-acquisition integration. A longitudinal examination of the relationships among uncertainty management methods adopted by integration managers, integration implemented activities, and post-acquisition integration outcomes should be established. Understanding those links would be of great value in revealing how the processes work and in testing their underlying theoretical mechanisms.

Second, while informative, the data of this study come from one post-acquisition integration case and in a certain sense might lack a possibility of generalizing the results to other M&A types and contexts. It is uncertain whether the results of this research could be applied among hostile post-acquisition integrations, especially as this study's interviewees emphasized the important role of collaboration due to frequent communication and knowing and trusting other integration managers they had to collaborate with. For further studies, it would be necessary to explore the extent to which the organizational context and structure might affect the acceptance of collaboration among integration managers and thus their relationship with the managing directors concerned. Moreover, more research would be required to understand the effects of having integration managers who have considerable experience in integration decision-making processes in support of collaboration.

Third, it might come as a surprise that, although, the study is positioned in the international context, there is a relative absence of major findings related directly to the cross-cultural setting. In addition, although the data derived from the cross-border setting and the research design, approach and data analysis were open to explore the international context, there was still little reference from the research participants to the international context. The researcher has analyzed the collected data as intensively as, hopefully, it is visible in the methods section, and did not observe anything that integration managers would make significant out of this international context in the way they perceived and managed uncertainties. Although, this paper explores an IM&A case between two Nordic MNCs and existing studies show that cultural similarities can create a paradox (e.g., Vaara, 2000), the interpreted data in this study provided little explicit cultural or institutional explanations that would have contributed to the research question in focus.

There is a number of ways to interpret this. First, although existing studies often attribute the success of post-acquisition integration to a clash of cultures between the integration entities (Galpin & Herndon, 2014) and cultural conflicts are considered to be the cause of M&A's failure along with cultural misfit (Weber & Camerer, 2003), acculturative stress (Larsson & Lubatkin, 2001), and social construction of cultural differences (Vaara et al., 2012), in the context of this research, more challenges and uncertainties derived from organizational culture than national culture. Hence, national culture had only distal influence. A number of studies in IM&A literature has discussed that organizational culture differences can matter more than cross-cultural differences regarding certain issues and more challenges are deriving from organization culture that national culture (Sarala, 2009; Vaara et al., 2012). Second, during post-acquisition decision-making as well as in the interviews, they all spoke English as a second language and, hence, could have experienced mutual disadvantage. Third, the firms in focus had thoroughly prepared for the post-acquisition integration process and to the degree that cross-cultural differences would not become an issue in the post-acquisition integration. The whole notion of evidence-based decision-making and applying a very high dose of objectivity in decision-making (as illustrated in Essay 2) paves the way so that cross-cultural issues would not become the major concern for integration managers. Fourth, integration versus merger concerns overshadow cultural differences. Hence, cross-cultural issues, perhaps, were considered less influential compared to the ones that emerged as the result of integration managers' thinking whether that was a merger or an acquisition, winner versus loser mentality. The future research, hence, should explore the conditions and context under which national culture might or might not shape post-acquisition integration process. Indeed, in certain situations post-acquisition integration is executed despite significant cultural differences (Viegas-Pires, 2013).

Finally, the dissertation offers suggestions for how the field could benefit from future studies that include (1) dimensions of uncertainty that are more conceptually and statistically parsimonious and the greater use of subjective measures of uncertainty; (2) a wider spectrum of uncertainties, in particular firm dimensions of uncertainty, within single studies; and (3) the role of individual decision-makers in how different dimensions of uncertainty are perceived and managed within the MNC. Inconsistencies in the conceptualization and measurement of uncertainty are problematic because they fragment our knowledge of the field and, most significantly, impede the development of our accumulative knowledge about uncertainty and its effects. Those inconsistencies have inhibited our understanding about what uncertainties MNCs actually prioritize when making international decisions, and has impeded our understanding of how an MNC prioritizes the uncertainties it recognizes and how that affects its decisions. Hence, future research should choose dimensions of uncertainty that are more conceptually and statistically parsimonious in order to prevent further confusion. Along with parsimoniousness, more studies that integrate subjective measures of uncertainty are needed in order to understand how decision-makers within MNCs actually differentiate between, and respond to, different dimensions of uncertainty. Subjective measurements of uncertainty are more likely to provide findings that are representative of what individual decision-makers actually experience (e.g., as in Petersen et al., 2008 or Whitelock & Jobber, 2004).

To address the lack of diversity in uncertainty dimensions included within single studies, firm dimensions of uncertainty along with environmental and industry uncertainties should be considered. By doing so, international decision-making models will not only acquire an enhanced ability to explain the kind of MNC behavior variation that is observed, but will also open opportunities to examine the interactions between the different types of uncertainty alluded to above. In terms of future research, due to the complex business environments in which MNCs operate, the trade-off among different dimensions of uncertainty and understanding their contextual effect on decision-making remains crucial within the field of IB. Hence, it is important to understand not only how one category of uncertainty is managed, but how the simultaneous impact of multiple uncertainties from different categories influences how MNC operations are and should be managed.

Lastly, consideration of individual managers as decision-makers would have far-reaching implications for researching MNCs and understanding the way in which multinationals operate (Piekkari & Welch, 2010; Roth & Kostova, 2003). Despite emerging evidence about the significance of individual decision-makers, most existing studies research managerial perceptions of uncertainty without considering differences between individuals (e.g., Luo, 2001; White et al., 2015). This is problematic since the compere picture of international decision-making cannot be understood without a proper understanding of the motivations and attributes of managers at the individual level of analysis. One way for the future research in this domain to address the presented limitation is to explore the connections between the characteristics of the individual decision-maker and subjective perceptions about different dimensions of uncertainty. It is important to understand the interconnections between the characteristics of individual decision-makers, their impact on a decision-making team's preference for uncertainty and how that manifests itself at the MNC level.

References

Agarwal, S. & Ramaswami, S. N. (1992). Choice of foreign market entry mode: Impact of ownership, location and internationalization factors. *Journal of International Business Studies*, 23(1), 1-27.

Aguilera, R. V. & Dencker, J. C. (2004). The role of human resource management in cross-border mergers and acquisitions. *International Journal of Human Resource Management*, 15(8), 1355-1370.

Aharoni, Y. (1966). *The Foreign Investment Decisions*. Boston, MA: Harvard University Press.

Aharoni, Y., Tihanyi, L., & Connelly, B. L. (2011). Managerial decision-making in international business: A forty-five-year retrospective. *Journal of World Business*, 46(2), 135-142.

Ahsan, M. & Musteen, M. (2011). Multinational enterprises' entry mode strategies and uncertainty: A review and extension. *International Journal of Management Reviews*, 13(4), 376-392.

Alderson, P., Green, S., & Higgins, J. (2004). *Cochrane Reviewer's Handbook*. Chichester, UK: Wiley.

Alessandri, T. M., Ford, D. N., Lander, D. M., Leggio, K. B., & Taylor, M. (2004). Managing risk and uncertainty in complex capital projects. *Quarterly Review of Economics and Finance*, 44(50), 751-767.

Alvarez, S. A. & Barney, J. B. (2005). How do entrepreneurs organize firms under conditions of uncertainty? *Journal of Management*, 31(5), 776-793.

Alvarez, S., Afuah, A., & Gibson, C. (2018). Editors' comments: Should management theories take uncertainty seriously? *Academy of Management Review*, 43(2), 169-172.

Alvesson, M. (2003). Methodology for close up studies – struggling with closeness and closure. *Higher Education*, 46(2), 167-193.

Angwin, D. N. (2004). Speed in M&A integration: The first 100 days. *European Management Journal*, 22(4), 418-430.

Angwin, D. N. (2007). Mergers and acquisitions: A primer. In: D. Angwin (Eds.), *Mergers and Acquisitions* (pp.383-408). Malden, MA: Blackwell Publishing.

Angwin, D. N., Paroutis, S., & Connell, R. (2015). Why good things Don't happen: the micro-foundations of routines in the M&A process. *Journal of Business Research*, 68(6), 1367-1381.

Angwin, D. N. & Vaara, E. (2005). Introduction to the special issues. 'Connectivity' in merging organizations: Beyond traditional cultural perspectives. *Organizational Studies*, 26(10), 1445-1453.

Ashill, N. J. & Jobber, D. (2010). Measuring state, effect, and response uncertainty: Theoretical construct development and empirical validation. *Journal of Management*, 36(5), 1278-1308.

Ashkenas, R. (2012). Take advantage of merger integration – before it takes advantage of you. Forbes. Retrieved on 10.11.2020 from: https://www.forbes.com/sites/ronashkenas/2012/05/14/take-advantage-of-merger-integration-before-it-takes-advantage-of-you/?sh=56ded956bb6f.

Ashkenas, R. N., DeMonaco, L. J., & Francis, S. C. (1998). Making the deal real: How GE capital integrates acquisitions. *Harvard Business Review*, 76(1), 165-178.

Ashkenas, R. N. & Francis, S. (2000). Integration managers: Special leaders for special times. *Harvard Business Review*, Nov-Dec: 109.

Atkinson, R., Crawford, L., & Ward, S. (2006). Fundamental uncertainties in projects and the scope of project management. *International Journal of Project Management*, 24(8), 687-698.

Atuahene-Gima, K. & Li, H. (2004). Strategic decision comprehensiveness and new product development outcomes in new technology ventures. *Academy of Management Journal*, 47(4), 583-597.

Austin, D. V. (1970). Merger myths: We contemplate no changes in personnel. *Mergers and Acquisitions*, 5(5), 20-21.

Back, M. D. (2015). Opening the process black box: Mechanisms underlying the social consequences of personality. *European Journal of Personality*, 29(2), 91-96.

Balogun, J., Gleadle, P., Hope-Hailey, V., & Willmott, H. C. (2005). Managing change across boundaries: Boundary-shaking practices. *British Journal of Management*, 16(4), 261-278.

Barkema, H. G., Bell, J. H. J., & Pennings, J. M. (1996). Foreign entry, cultural barriers, and learning. *Strategic Management Journal*, 17(2), 151-166.

Barley, S. R. (1986). Technology as an occasion for structuring: Evidence from observations of CT scanners and the social order of radiology departments. *Administrative Science Quarterly*, 31(1), 78-108.

Barnard, C. (1968). *The Functions of the Executive*. Cambridge, MA: Harvard University Press.

Barner-Rasmussen, W., Ehrnrooth, M., Koveshnikov, A., & Mäkelä, K. (2014). Cultural and language skills as resources for boundary spanning within the MNC. *Journal of International Business Studies*, 45(7), 886-905.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.

Bartlett, C. A. & Ghoshal, S. (1989). *Managing Across Borders: The Transnational Solution*. Boston, MA: Harvard Business School Press.

Bauer, F. & Matzler, K. (2014). Antecedents of M&A success: The role of strategic complementarity, cultural fit, and degree and speed of integration. *Strategic Management Journal*, 35(2), 269-291.

Baxter, P. & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), 544-559.

Berger, P. L. & Luckmann, T. (1967). The Social Construction of Reality: A Treatise in The Sciology of Knowledge. Garden City, NY: Doubleday.

Bijlsma-Frankema, K. (2004). Dilemmas of managerial control in post-acquisition processes. *Journal of Managerial Psychology*, 19(3), 252-268.

Birkinshaw, J. & Gupta, K. (2013). Clarifying the distinctive contribution of ambidexterity to the field of organization studies. *Academy of Management Perspectives*, 27(4), 287-298.

Birollo, G. & Teerikangas, S. P. (2019). Integration projects as relational spaces: A closer look at acquired managers' strategic role recovery in cross-border acquisitions. *International Journal of Project Management*, 37, 1003-1016.

Bordia, P., Hobman, E., Jone, E., Gallois, C., & Callan, V. J. (2004). Uncertainty during organizational change: Types, consequences, and management strategies. *Journal of Business and Psychology*, 18(4), 507-532.

Bourgeois, III, L. J. (1985). Strategic goals, perceived uncertainty, and economic performance in volatile environments. *The Academy of Management Journal*, 28(3), 548-573.

Brannen, M. Y. & Doz, Y. (2010). From a distance and detached to up close and personal: Bridging strategic and cross-cultural perspectives in international management research and practice. *Scandinavian Journal of Management*, 26(3), 236-247.

Brannen, M. Y. & Peterson, M. F. (2009). Merging without alienating: Interventions promoting cross-cultural organizational integration and their limitations. *Journal of International Business Studies*, 40(3), 468-489.

Brouthers, K. D. (1995). The influence of international risk on entry mode strategy in the computer software industry. *Management International Review*, 35(1), 7-28.

Brouthers, K. D. (2002). Institutional, cultural and transaction cost influences on entry mode choice and performance. *Journal of International Business Studies*, 33(2), 203-221.

Brouthers, K. D. & Brouthers, L. E. (2000). Acquisition or greenfield start-up? Institutional, cultural and transaction cost influences. *Strategic Management Journal*, 21(1), 89-97.

Brouthers, K. D., Brouthers, L. E., & Werner, S. (2008). Real options, international entry mode choice and performance. *Journal of Management Studies*, 45(5), 936-960.

Brouthers, K. D., & Dikova, D. (2010). Acquisitions and real options: The greenfield alternative. *Journal of Management Studies*, 47(6), 1048-1071.

Brown, A. D. (2000). Making sense of inquiry sensemaking. *Journal of Management Studies*, 37(1), 45–75.

Brueller, N. N., Carmeli, A., & Markman, G. D. (2016). Linking merger and acquisition strategies to postmerger integration: A configurational persepctive of human resource management. *Journal of Management*, 44(5), 1-26.

Buckley, P. J. (2002). Is the international business research agenda running out of stream? *Journal of International Business Studies*, 33(2), 365-73.

Buckley, P. J. (2020). The theory and empirics of the structural reshaping of globalization. *Journal of International Business Studies*, 51(9), 1580-1592.

Buckley, P. J. & Casson, M. (1976). *The Future of The Multinational Enterprise*. London: Holms and Meier.

Buckley, P. J. & Casson, M. (1998). Analyzing foreign market entry strategies: Extending the internalization approach. *Journal of International Business Studies*, 29(3), 539-562.

Buckley, P. J., Devinney, T. M., & Louviere J. J. (2007). Do managers behave the way theory suggests? A choice theoretic examination of foreign direct investment location decision-making. *Journal of International Business Studies*, 38(7), 1069-1094.

Buckley, P. J. & Lessard, D. (2005). Regaining the edge for international business research. *Journal of International Business Studies*, 36(6), 595-599.

Buono, J. & Bowditch, J. (1989). *The Human Side of Mergers and Acquisitions*. San Francisco: Jossey-Bass Publishers.

Burgelman, R. A. (1983). A process model of internal corporate venturing in the diversified major firm. *Administrative Science Quarterly*, 28(2), 223-244.

Calori, R., Lubatkin, M., Very, P., & Veiga, J. F. (1997). Modelling the origins of nationally-bound administrative heritages: A historical institutional analysis of French and British firms. *Organizational Science*, 8(6), 681-696.

Cantrell, D. C. (2001). *Alternative Paradigms in Environmental Education Research: The Interpretive Perspective*. Retrieved from: http://www.edu.uleth.ca/ciccte/naceer.pgs/pubpro.pgs/alternate/pubfiles/08.Cantrell.fin.htm.

Capron, L. (1999). The long-term performance of horizontal acquisitions. *Strategic Management Journal*, 20(11), 987-1018.

Carley, K. M. & Behrens, D. (1999). Chapter 18: Organizational and individual decision making. In: A.P. Sage and W. B. Rouse (eds.), *Handbook of Systems Engineering and Management*. John Wiley and Sons, Inc.

Carr, W. & Kemmis, S. (1986). Becoming critical: Education, knowledge and action research. *The Journal of Educational Thought*, 23(3), 209-216.

Carroll, G. R. (1993). A sociological view on why firms differ. *Strategic Management Journal*, 14(4), 237-249.

Cartwright, S. & Cooper, C. L. (1990). The impact of mergers and acquisitions on people at work: Existing research and issues. *British Journal of Management*, 1(2), 65-76.

Certo, T. S., Connelly, B. L., & Tihanyi, L. (2008). Managers and their not-so rational decisions. *Business Horizons*, 51(2), 113-119.

Charmaz, K. (2001). Qualitative interviewing and grounded theory analysis. In: J. Gubrium and J. Holstein (Eds.), *Handbook of Interview Research: Context and Method*. Thousand Oaks, CA: Sage.

Charmaz, K. (2006). Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis. London: Sage.

Chatterjee, S., Lubatkin, M. H., Schweiger, D. M., & Weber, Y. (1992). Cultural differences and shareholder value in related mergers: Linking equity and human capital. *Strategic Management Journal*, 13(5), 319-334.

Cheng, J. L. C., Henisz, W. J., Roth, K., & Swaminathan, A. (2009). From the editors: Advancing interdisciplinary research in the field of international business: prospects, issues, and challenges. *Journal of International Business Studies*, 40(7), 1070-1074.

Chiao, Y.-C., Lo, F.-Y., & Yu, C.-M. (2010). Choosing between wholly-owned subsidiaries and joint ventures of MNCs from an emerging market. *International Marketing Review*, 27(3), 338-365.

Child, J. (1997). Strategic choice in the analysis of action, structure, organizations and environment: Retrospect and prospect. *Organization Studies*, 18(1), 43-76.

Child, J., Faulkner, D., & Pitkethly, R. (2001). *The Management of International Acquisitions*. Oxford University Press: New York.

Chreim, S. & Tafaghod, M. (2012). Contradiction and sensemaking in acquisition integration. *The Journal of Applied Behavioral Science*, 48(1), 5-32.

Clark, S. M., Gioia, D. A., Ketchen, D. J., & Thomas, J. B. (2010). Transitional identity as a facilitator of organizational identity change during a merger. *Administrative Science Quarterly*, 55(3), 397-438.

Coase, (1937). The nature of the firm. *Economica,* 4(16), 386-405.

Coleman, J. S. (1990). *Foundations of Social Theory*. Cambridge, MA: The Belknap Press of Harvard University Press.

Corbin, J. M. & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13, 3-21.

Corley, K. G. & Gioia, D. A. (2004). Identity ambiguity and change in the wake of a corporate spin-off. *Administrative Science Quarterly*, 49(2), 173-208.

Creswell, J. W. (1994). Research Design: Qualitative and Quantitative Approaches. Thousand Oaks, CA: Sage.

Creswell, J. W. & Miller, D. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130.

Creswell, J. W. (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, California: SAGE Publications, Inc.; 5th Edition.

Crotty, M. (1998). *The Foundation of Social Research: Meaning and Perspective in the Research Process*. Thousand Oaks, CA: SAGE.

Cyert, R. & March, J. (1963). *A Behavioral Theory of the Firm*. Englewood Cliffs, NJ: Prentice Hall.

Daniel, T. A. (1999). Between trapezes: The human side of making mergers and acquisitions work. *Compensation & Benefits Management*, 15(1), 19-37.

Datta, D. K. & Puia, G. (1995). Cross-border acquisitions: An examination of the influence of relatedness and cultural fit on shareholder value creation in US acquiring firms. *Management International Review*, 35(4), 337-359.

Deetz, S. (1996). Commentary: The positioning of the researcher in studies of organizations: De-hatching literary theory. *Journal of Management Inquiry*, 5(4), 387-391.

Delios, A. & Henisz, W. J. (2003a). Policy uncertainty and the sequence of entry by Japanese firms, 1980–1998. *Journal of International Business Studies*, 34(3), 227–241.

Delios, A. & Henisz, W. J. (2003b). Political hazards, experience, and sequential entry strategies: The international expansion of Japanese firms, 1980-1998. *Strategic Management Journal*, 24(11), 1153-1164.

Denyer, D. & Tranfield, D. (2009). Producing a systematic review. In: D. Buchanan and A. Bryman (Eds.), *The Sage Handbook of Organizational Research Methods* (pp. 671-689). London: Sage.

Denzin, N. & Lincoln, Y. (eds.) (2000). *Handbook of Qualitative Research*, 2nd ed. Sage: Thousand Oaks, CA.

Denzin, N. K. & Lincoln, Y. S. (2005). Introduction: The discipline and practice of qualitative research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (3rd ed., pp. 1-32). Thousand Oaks, CA: Sage.

DiFonzo, N. & Bordia, P. (1998). A tale of two corporations: Managing uncertainty during organizational change. *Human Resource Management*, 37 (3&4), 295-303.

Di Gregorio, D. (2005). Re-thinking country risk: Insights from entrepreneurship theory. *International Business Review*, 14(2), 209–226.

Doty, D. H., Bhattacharya, M., Wheatley, K. K., & Sutcliffe, K. M. (2006). Divergence between informant and archival measures of the environment: Real differences, artifact, or perceptual error? *Journal of Business Research*, 59(2), 268-277.

Duncan, R. B. (1972). Characteristics of organizational environments and perceived environmental uncertainty. *Administrative Science Quarterly*, 17(3), 313-327.

Dunning, J. H. (1977). Trade, location and economic activity and the multinational enterprise. In: B. Ohlin; P. O. Hesselborn, and P. M. Wijkman (Eds.), *The International Allocation of Economic Activity*. London: Macmillan.

Dunning, J. H. (1979). Explaining changing patterns of international production. In defense of the eclectic theory. *Oxford Bulletin of Economics and Statistics*, 41(4), 269-295.

Dunning, J. H. (1980). Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies*, 11(1), 9-31.

Dutton, J. E., Ashford, S. J., O'Neill, R. M., & Lawrence, K. A. (2001). Moves that matter: Issue selling and organizational change. *The Academy of Management Journal*, 44(4), 716-736.

Dyer, W. G. & Wilkins, A. L. (1991). Better stories, not better constructs, to generate better theory: A rejoinder to Eisenhardt. *The Academy of Management Review*, 16(3), 613-619.

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1), 57-74.

Eisenhardt, K. M. & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32.

Elango, B. & Sambharya, R. B. (2004). The influence of industry structure on the entry mode choice of overseas entrant in manufacturing industries. *Journal of International Management*, 10(1), 107-124.

Ellwood, P., Grimshaw, P. & Pandza, K. (2016). Accelerating the innovation process: A systematic review and realist synthesis of the research literature. *International Journal of Management Reviews*, 19(4), 510-530.

Eriksson, P. & Kovalainen, A. (2008). *Qualitative Methods in Business Research*. SAGE: Los Angeles.

Erkkilä, L. (2017). In control or out of control? – A discourse analysis of managers' talk during early integration. *Doctoral Dissertation*, Aalto University publication series.

Fama, E. F. & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26(2), 327-349.

Felin, T. & Foss, N. (2005). Strategic organization: A field in search of micro-foundations. *Strategic Organization*, 3(4), 441-455.

Finkelstein, S. & Hambrick, D.C. (1996). *Strategic Leadership: Top Executives and Their Effects on Organizations*. West Publishing: St Paul, MN.

Gaba, V., Pan, Y., & Ungson, G. R. (2002). Timing of entry in international market: An empirical study of U.S. fortune 500 firms in China. *Journal of International Business Studies*, 33(1), 39-55.

Galpin, T. J. & Herndon, M. (2014). The Complete Guide to Mergers and Acquisitions: Process Tools to Support M&A Integration at Every Level. 3rd edition. Somerset, US: Jossey-Bass.

Gedajlovic, E. & Shapiro, D. M. (1998). Management and ownership effects: Evidence from five countries. *Strategic Management Journal*, 19(6), 533-553.

Gentile-Lüdecke, S. & Lundan, S. M. (2013). International business. In: D. Tsang; H. H. Kazeroony, and G. Ellis (Eds). *The Routledge Companion to International Management Education*. New York: Routledge.

Gephart, R. P. (1999). Paradigms and research methods. *Academy of Management Research Methods Forum*, 4, 1-12.

Gephart, R. P. (2004). Qualitative research and the Academy of Management Journal. *Academy of Management Journal*, 47(4), 454-462.

Gerhart, B. (2008). How much does national culture constrain organizational culture? *Management and Organization Review*, 5(2), 241-259.

Gertsen, M. C. & Søderberg, A.-M. (2000). Tales of trial and triumph a narratological perspective on international acquisition. *Advances in Mergers and Acquisitions*, 1, 239-272.

Ghoshal, S. & Bartlett, C. A. (1994). Linking organizational context and managerial action: The dimensions of quality management. *Strategic Management Journal*, 15(S2), 91-112.

Gilbert, C. G. (2005). Unbundling the structure of inertia: Resource versus routine rigidity. *Academy of Management Journal*, 48(5), 741-763.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, 16(1), 15–31.

Gomes, E., Angwin, D. N., Weber, Y., & Tarba, S. Y. (2013). Critical success factors through the mergers and acquistions process: Revelating pre- and post-M&A connections for improved performance. *Thunderbird International Business Review*, 55(1), 13-35.

Graebner, M. E. (2004). Momentum and serendipity: How acquired leaders create value in the integration of technology firms. *Strategic Management Journal*, 25(8-9), 751-777.

Graebner, M. E. & Eisenhardt, K. M. (2004). The seller's side of the story: Acquisition as courtship and governance as syndicate in entrepreneurial firms. *Administrative Science Quarterly*, 49(3), 366-403.

Graebner, M. E., Heimeriks, K. H., Huy, Q. N., & Vaara, E. (2017). The process of postmerger integration: A review and agenda for future research. *Academy of Management Annals*, 11(1), 1–32.

Graebner, M. E., Martin, J., & Roundy, P. (2012). Qualitative data: Cooking without a recipe. *Strategic Organization*, 10(3), 276-284.

Grant, M., Nilsson, F., & Nordvall, A.-C. (2020). The use of intuitive expertise in acquisition-making: An exploratory study. In M. Sinclair (Eds.) *Handbook of Intuition Research as Practice*. Cheltenham: Edward Elgar Publishing Limited.

Gray, B. (1994). Active and passive international marketing strategies: The case of two state-owned broadcasters. *European Journal of Marketing*, 28(2), 42-56.

Griffith, D. A., Casvugil, S. T., & Xu, S. (2008). Emerging themes in international business research. *Journal of International Business Studies*, 39(7), 1220-1235.

Grote, G. (2009). Management of Uncertainty: Theory and Application in the Design of Systems and Organizations. Springer: Verlag London.

Guba, E. G. & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin and Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105–117). Newbury Park, CA: Sage.

Guba, E. E. & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. Denzin & Y. Lincoln (Eds.). *Handbook of Qualitative Research* (3rd ed., pp. 191-216). Thousand Oaks, CA: Sage.

Hallebone, E. & Priest, J. (2009). *Business and Management Research: Paradigms and Practices*. Palgrave Macmillan: New York.

Hambrick, D. & Mason, P. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193-206.

Hardy, C., Phillips, N. and Clegg, S. (2001). Reflexivity in organization and management theory: A study of the production of the research 'subject'. *Human Relations*, 54(5), 531-560.

Haspeslagh, P. C. & Jemison, D. B. (1991). *Managing Acquisitions – Creating Value Through Corporate Renewal*. The Free Press: New York, NY.

Hassett, M. E. & Nummela, N. (2018). A new research agenda for managing socio-cultural integration. In: Raitis, J.; Harikkala-Laihinen, R.; Hassett, M. E., and Nummela, N. (Eds.). *Socio-Cultural Integration in Mergers and Acquisitions: The Nordic Approach*. Springer International Publishing AG: Switzerland.

Henning, E., Van Rensburg, W., & Smit, B. (2004). *Finding Your Way in Qualitative Research*. Pretoria: Van Schaik.

Higgs, J. (2001). Charting standpoints in qualitative research. In: Hilary Byrne-Armstrong, Joy Higgs & Debbie Horsfall (Eds.), *Critical moments in qualitative research* (pp. 44-67). Oxford: Butterworth-Heinemann.

Hirschheim, R., Klein, H. & Lyytinen, K. (1995). *Information Systems Development and Data Modeling*. Cambridge University Press: Cambridge.

Hitt, M. A., Harrison, J. S., & Ireland, R. (2001). *Mergers and Acquisitions: A Guide to Creating Value for Stakeholders*. Oxford University Press: Oxford, UK.

Hitt, M. A., Beamish, P. W., Jackson, S. E. & Mathieu, J. E. (2007). Building theoretical and empirical bridges across levels: Multilevel research in management. *Academy of Management Journal*, 50(6), 1385-1399.

Hodgkinson, I. R., Hughes, P., & Arshad, D. (2016). Strategy development: Driving improvisation in Malaysia. *Journal of World Business*, 51(3), 379-390.

Hodgkinson, G. P. & Johnson, G. (1994). Exploring the mental models of competitive strategists: The case for a processual approach. *Journal of Management Studies*, 31(4), 525-552.

Hodgkinson, G. P. & Sadler-Smith, E. (2018). The dynamics of intuition and analysis in managerial and organizational decision-making. *Academy of Management Perspectives*, 32(4), 473-492.

Hofstede, G. (1980). Culture's Consequences: International Differences in Work Related Values. Sage Publications: Beverly Hills, CA.

Huber, O., Wider, R., & Huber, O.W. (1996). Active information search and complete information presentation in naturalistic risky decision tasks. *Acta Psychologica,* 95(1), 15-29.

Huff, A. S., Huff, J. O., & Barr, P. S. (2000). *When Firms Change Direction*. Oxford University Press: New York.

Inkpen, A. C., Sundaram, A. K., & Rockwood, K. (2000). Cross-border acquisitions of U.S. technology assets. *California Management Review*, 42(3), 50-71.

Ivancevich, J. M., Schweiger, D. M., & Power, F. R. (1987). Strategies for managing human resources during mergers and acquisitions. *Human Resource Planning*, 10(1), 19-35.

Jaafari, A. (2001). Management of risks, uncertainties and opportunities on projects: Time for a fundamental shift. *International Journal of Project Management*, 19(2), 89-101.

Jaeger, C., Renn, O., Rosa, E., & Webler, T. (2001). *Risk, Uncertainty, and Rational Action*. London: Earthscan.

Jarzabkowski, P. (2008). Shaping strategy as a structuration process. *The Academy of Management Journal*, 51(4), 621-650.

Jauch, L. R. & Kraft, K. L. (1986). Strategic management of uncertainty. *Academy of Management Review*, 11(4), 777-790.

Jemison, D. B. & Sitkin, S. B. (1986). Corporate acquisitions: A process perspective. *Academy of Management Review*, 11(1), 145-163.

Ji, J. & Dimitratos, P. (2013). An empirical investigation into international entry mode decision-making effectiveness. *International Business Review*, 22(6), 994-1007.

Johanson, J. & Vahlne, J.-E. (1977). The internationalization process of the firm – a model of knowledge and increasing foreign commitments. *Journal of International Business Studies*, 8(1), 23-32.

Johnson, P., Buehring, A., Cassell, C., & Symon, G. (2006). Evaluating qualitative management research: Towards a contingent criteriology. *International Journal of Management Reviews*, 8(3), 131-156.

Kahneman, D. (2011). *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux.

Kahneman, D. & Tversky, A. (1979). *Prospect theory: An analysis of decision under risk*. Econometric Society, 47(2), 263-292.

Kaplan, S. & Orlikowski, W. J. (2013). Temporal work in strategy making. *Organization Science*, 24(4), 965-995.

Killam, L. (2013). *Research terminology simplified: Paradigms, axiology, ontology, epistemology and methodology*. Sudbury, ON: Kindle Edition.

King, N. (1994). The qualitative research interview. In: C. Cassell and G. Symon (Eds), *Qualitative Methods in Organizational Research: A Practical Guide*. Sage Publications, Inc.

Kiss, A. N., Williams, D. W., & Houghton, S. M. (2013). Risk bias and the link between motivation and new venture post-entry international growth. *International Business Review*, 22(6), 1068–1078. doi:10.1016/j.ibusrev.2013.02.007.

Knight, F. (1921). *Risk, Uncertainty and Profit*. Boston, NY: Houghton Mifflin Company.

Kogut, B. & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3(3), 383-397.

Kornberger, M. & Clegg, S. (2011). Strategy as performance practice: The case of Sydney 2030. *Strategic Organization*, 9(2), 136-162.

Kouamé, A. & Langley, A. (2017). Relating microprocesses to macro-outcomes in qualitative strategy process and practice research. *Strategic Management Journal*, 39(3), 559-581.

Krug, J. A. & Hegarty, W. H. (2001). Predicting who stays and leaves after an acquisition: A study of top managers in multinational firms. *Strategic Management Journal*, 22(2), 185-196.

Kutsch, E. & Hall, M. (2005). Intervening conditions on the management of project risk: Dealing with uncertainty in information technology projects. *International Journal of Project Management*, 23(8), 591-599.

Kvale, S. & Brinkmann, S. (2015). *InterViews: Learning the Craft of Qualitative Research Interviewing* (3rd ed.). SAGE Publications, Inc.: Thousand Oaks, CA.

Langley, A. & Abdallah, Ch. (2011). Templates and turns in qualitative studies of strategy and management. In: D. D. Bergh, & D. J. Jr. Ketchen (Eds.), *Building Methodological Bridges: Research Methodology in Strategy and Management* (volume 6). Emerald Group Publishing Limited: Bingley, UK.

Langley, A. (1995). Between 'paralysis by analysis' and 'extinction by instinct'. *MIT Sloan Management Review*, 36(3), 63-76.

Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691-710.

Langley, A. & Stensaker, I. (2012). Longitudinal research and analysis. In: G. Symon and C. Cassell (Eds.), *The Practices of Organizational Research: Core Methods and Current Challenges*, Beverly Hills: Sage, 149-167.

Lasserre, P. (2003). *Global Strategic Management*. New York: Palgrave Macmillan.

Larsson, R. & Finkelstein, S. (1999). Integrating strategic, organizational, and human resource perspectives on mergers and acquisitions: A case survey of synergy realization. *Organization Science*, 10(1), 1-26.

Larsson, R. & Lubatkin, M. (2001). Achieving acculturation in mergers and acquisitions: An international case survey. *Human Relations*, 54(12), 1573-1607.

Lawrence, P. R. & Lorsch, J. W. (1967). Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 12(1), 1-47.

Lees, S. (2003). Global Acquisitions: Strategic Integration and the Human Factor. Basingstoke: Palgrave.

Liesch, P. W.; Welch, L. S., & Buckley, P. J. (2011). Risk and uncertainty in internationalization and international entrepreneurship studies: Review and conceptual development. *Management International Review*, 51(6), 851-873.

Lincoln, Y. S. (1998). The ethics of teaching in qualitative research. *American Journal of Evaluation*, 4(3), 315-327.

Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage: Beverly Hills, CA.

Lipshitz, R. & Strauss, O. (1997). Coping with uncertainty: A naturalistic decision-making analysis. *Organizational Behavior and Human Decision Processes*, 69(2), 149-163.

Lorenzi, P., Sims, H.P., & Slocum, J. (1981). Perceived environmental uncertainty: An individual or environmental attribute? *Journal of Management*, 7(2), 27-41.

Lubatkin, M., Calroi, R., Very, P., & Veiga, J. F. (1998). Managing mergers across borders: A two-nation exploration of a nationally bound administrative heritage. *Organization Science*, 9(6), 670-684.

Luo, Y. (2001). Determinants of entry in an emerging economy: A multilevel approach. *Journal of Management Studies*, 38(3), 443–472. doi:10.1111/ 1467-6486.00244

Maitland, E. & Sammartino, A. (2015a). Managerial cognition and internationalization. *Journal of International Business Studies*, 46(7), 733-760.

Maitland, E. & Sammartino, A. (2015b). Decision making and uncertainty: The role of heuristics and experience in assessing a politically hazardous environment. *Strategic Management Journal*, 36(10), 1554-1578.

Maitlis, S. & Christianson, M. K. (2014). Sensemaking in organizations: Taking stock and moving forward. *The Academy of Management Annals*, 8(1), 57-125.

Maitlis, S. and Lawrence, T. B. (2007). Triggers and enablers of sensegiving in organizations. *Academy of Management Journal*, 50(1), 57-84. doi.org/10.5465/amj.2007.24160971.

Makhija, M. V. & Stewart, A. C. (2002). The effect of national context of perceptions of risk: A comparison of planned versus free-market managers. *Journal of International Business Studies*, 33(4), 737-756.

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2: 71-87.

March, J. G. & Simon, H. A. (1958). *Organizations*. Wiley: New York.

Marks, M. L. & Mirvis, P. H. (1986). The merger syndrome: Stress and uncertainty. *Psychology Today,* 20(10), 36-42.

Marks, M. L. & Mirvis, P. H. (1997). Revisiting the merger syndrome: Dealing with stress. *Mergers & Acquisitions*, May/June, 1997.

Marks, M. L. & Mirvis, P. H. (2010). Joining Forces: Making One Plus One Equal Three in Mergers, Acquisitions, and Alliances, 2nd ed. Jossey-Bass: San Francisco.

Marks, M. L. & Mirvis, P. H. (2011). A framework for the human resources role in managing culture in mergers and acquisitions. *Human Resource Management*, 50(6), 859-877.

Marmenout, K. (2010). Employee sensemaking in mergers: How deal characteristics shape employee attitudes. *Journal of Applied Behavior Science*, 46(3), 329-359.

Marschan-Piekkari, R. & Reis, C. (2004). Language and languages in cross-cultural interviewing. In: R. Marschan-Piekkari and C. Welch (Eds). *Handbook of Qualitative Research Methods for International Business*. Edward Elgar Publishing: Cheltenham.

Martin, J. A. & Eisenhardt, K. M. (2010). Rewiring: Cross-business-unit collaborations in multibusiness organizations. *Academy of Management Journal*, 53(2), 265-301.

Martins, L. L. (2005). A model of the effects of reputational rankings on organizational change. *Organization Science*, 16(6), 701–720.

McPhee, R. D. & Zaug, P. (2001). Organizational theory, organizational communication, organizational knowledge, and problematic integration. *Journal of Communication*, 51(3), 574-591.

McSweeney, B. & Happonen, E. (2012). Pre-deal management. In: D. Faulkner; S. Teerikangas, and R. J. Joseph (Eds). *The Handbook of Mergers and Acquisitions*. Oxford University Press: Oxford.

Meyer, C. B. (2006). Destructive dynamics of middle management intervention in postmerger processes. *The Journal of Applied Behavioral Science*, 42(4), 397-419.

Meynerts-Stiller, K. & Rohloff, C. (2019). *Post-Merger Management: Value Creation in M&A Integration Projects*. Emerald Group Publishing: Stuttgart, Germany.

Miller, K. D. (1992). A framework for integrated risk management in international business. *Journal of International Business Studies*, 23(2), 311-331.

Miller, K. D. (2007). Risk and rationality in entrepreneurial processes. *Strategic Entrepreneurship Journal*, 1(1-2), 57-74.

Milliken, F. (1987) Three types of Perceived Uncertainty about the Environment: State, effect, and response uncertainty. *Academy of Management Review*, 12(1), 133—143.

Minbaeva, D. (2016). Contextualising the individual in international management research: Black boxes, comfort zones and a future research agenda. *European Journal of International Management*, 10(1), 95-104.

Mintzberg, H. (1978). Patterns in strategy formulation. *Management Science*, 24, 934-948.

Mirvis, P. H. & Marks, M. L. (1992). The human side of merger planning: Assessing and analyzing “fit”. *Human Resource Planning*, 15(3), 69-92.

Monin, P., Noorderhaven, N., Vaara, E., & Kroon, D. (2013). Giving sense to and making sense of justice in post-merger integration. *Academy of Management Journal*, 56(1), 256-284.

Moorhead, G. & Griffin, R. W. (1995). *Organizational Behavior: Managing People and Organizations* (5th edition). Boston: Houghton Mifflin.

Moran, P. & Ghoshal, S. (1996). Bad for practice: A critique of the transaction cost theory. *Academy of Management Review,* 21(1), 13-47.

Moran, P. & Ghoshal, S. (1999). Markets, firms and the process of economic development. *Academy of Management Review*, 24(3), 390-412.

Mäkelä, K., Barner-Rasmussen, W., Ehrnrooth, M., & Koveshnikov, A. (2019). Potential and recognized boundary spanners in multinational corporations. *Journal of World Business*, 54(4), 335-349.

Nag, R. & Gioia, D. A. (2012). From common to uncommon knowledge: Foundations of firm-specific use of knowledge as a resource. *Academy of Management Journal*, 55(2), 421-457. https://doi.org/10.5465/amj.2008.0352.

Nahavandi, A. & Malekzadeh, A. R. (1988). Acculturation in mergers and acquisitions. *Academy of Management Review*, 13(1), 79-90.

Nelson, R. R. (1991). Why do firm differ, and how does it matter? *Strategic Management Journal*, 12(S2), 61-74.

Nutt, P. C. (1987). Identifying and appraising how managers install strategy. *Strategic Management Journal*, 8(1), 1-14.

Olsen, M. E., Lodwick, D. G., & Dunlap, R. E. (1992). *Viewing the world ecologically*. Boulder: Westview Press.

Pablo, A. I. (1994). Determinants of acquisition integration level: A decision-making perspective. *Academy of Management Journal*, 37(4), 803-836.

Packard, M. D. & Clark, B. B. (2020). On the mitigability of uncertainty and the choice between predictive and nonpredictive strategy. *Academy of Management Review*, 45 (4), 766-768.

Peng, M. W. (2004). Identifying the big question in international business research. *Journal of International Business Studies*, 35(2), 99-108.

Petersen, B., Pedersen, T., & Lyles, M. A. (2008). Closing knowledge gaps in foreign markets. *Journal of International Business Studies*, 39(7), 1097–1113.

Pfeffer, J. & Salancik, G. R. (1978). The External Control of Organizations: A Resource Dependence Perspective. Harper Row: New York.

Piekkari, R., Welch, C., & Paavilainen, E. (2009). The case study as disciplinary convention: Evidence from international business journals. *Organizational Research Methods*, 12(3), 567-589.

Piekkari, R. & Welch, C. (2010). The human dimension in multinational management: A way forward. *Scandinavian Journal of Manag*ement, 26(4), 467-476.

Platt, J. (1992). "Case study" in American methodological thought. *Current Sociology*, 40(1), 17-48.

Puranam, P., Singh, H. & Zollo, M. (2006). Organizing for innovation: Managing the coordination-autonomy dilemma in technology acquisitions. *Academy of Management Journal*, 49(2), 263-280.

Raitis, J., Harikkala-Laihinen, R., Hassett, M. E., & Nummela, N. (2018). *Socio-Cultural Integration in Mergers and Acquisitions. The Nordic Approach.* Palgrave Pivot, Springer International Publishing AG: Switzerland.

Raukko, M. (2009). Organizational commitment during organizational changes. A longitudinal case study on acquired key employees. *Baltic Journal of Management*, 4(3), 331-352.

Reeves, T. C. & Hedberg, J. C. (2003). *Interactive Learning Systems Evaluation*. Educational Technology Publications: Englewood Cliffs, New Jersey.

Renkema, M., Meijerink, J., & Bondarouk, T. (2016). Advancing multilevel thinking and methods in HRM research. *Journal of Organizational Effectiveness: People and Performance*, 3(2), 204-218.

Reus, T. H., Lamont, B. T., & Ellis, K. M. (2016). A darker side of knowledge transfer following international acquisitions. *Strategic Management Journal*, 37(5), 932-944.

Risberg, A. (1997). Ambiguity and communication in cross-cultural acquisitions – Towards a conceptual framework. *Leadership & Organization*, 9(2), 121-137.

Risberg, A. (1999). *Ambiguities Thereafter – An Interpretive Approach to Acquisitions*. Malmö, Sweden: Lund University Press.

Risberg, A. (2001). Employee experiences of acquisition processes. *Journal of World Business*, 36(1), 58-84.

Risberg, A. (2003). The merger and acquisition process. *Journal of International Business Studies*, 34(1), 1-34.

Ritchie, B. & Marshall, D. V. (1993). *Business Risk Management*. Chapman & Hall: 2-6 Boundary Row, London.

Robbins, S. P., Judge, T., Millett, B., & Boyle, M. (2014). *Organizational Behavior*. 7th Edition. Australia: Pearson.

Roth, K. & Kostova, T. (2003). The use of the multinational corporation as a research context. *Journal of Management*, 29(6), 883-902.

Rouleau, L. (2005). Micro-practices of strategic sensemaking and sensegiving: How middle managers interpret and sell change every day. *Journal of Management Studies*, 42(7), 1413-1441.

Rouleau, L. & Balogun, J. (2011). Middle managers, strategic sensemaking, and discursive competence. *Journal of Management Studies*, 48(5), 953-983.

Salmons, J. (2011). Designing and conducting research with online interviews. Cases in Online Interview Research. SAGE Publications: Thousand Oaks (pp. 1-30).

Sarala, R. (2009). The impact of cultural differences and acculturation factors on post-acquisition conflict. *Scandinavian Journal of Management*, 26(1), 38-56.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students*. Pearson Education Limited, 5th Ed. Pearson Education Ltd: Harlow, Essex.

Schriber, S. (2012). Weakened agents of strategic change: Negative effects of M&A processes on integration managers. *International Journal of Business and Management*, 7(12), 156-172.

Schweiger, D. M. (2002). M&A Integration: A Framework for Executives and Managers. McGraw-Hill: New York.

Schweiger, D. M. & DeNisi, A. S. (1991). Communication with employee following a merger: A longitudinal field experiment. *Academy of Management Journal*, 34(1), 100-135.

Schweiger, D. M. & Goulet, P. K. (2000). Integrating M&A: An international research review. In: C.L. Cooper and A. Gregory (Eds.), *Advances in M&A*, (Vol. 1, pp. 61-91). Emerald: Bingley, UK.

Schweiger, D. M., Ivancevich, J. M., & Power, F. R. (1987). Executive actions for managing human resources before and after acquisition. *Academy of Management*, 1(2), 127-138.

Schwenk, C. R. (1988). The cognitive perspective on strategic decision making. Journal of Management Studies, 25(1), 41-55.

Shaw, J. B. (1990). A cognitive categorization model for the study of intercultural management. *Academy of Management Review*, 15(4), 626-645.

Shelton, M. (2003). Managing your integration manager. *McKinsey Quarterly*. Retrieved on 10.11.2020 from: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/managing-your-integration-manager.

Shenkar, O. (2004). One more time: International business in a global economy. *Journal of International Business Studies*, 35(2), 161-171.

Shimizu, K., Hitt, M. A., Vaidyanath, D., & Pisano, V. (2004). Theoretical foundations of cross-border mergers and acquisitions: A review of current research and recommendations for the future. *Journal of International Management*, 10(3), 307-353.

Shrivastava, P. (1986). Postmerger integration. *Journal of Business Strategy*, 7(1), 65-76.

Simon, H. A. (1947). Administrative Behavior: A Study on Decision-Making Processes in Administrative Organization. New York: Free Press.

Simon, H. A. (1972). Theories of bounded rationality. *Decisions and Organization*, 1(1), 161-176.

Sinclair, M. & Ashkanasy, N. M. (2005). Intuition: Myth or a decision-making tool? *Management Learning*, 36(3), 353-370.

Sinkovics, R. R., Zagelmeyer, S., & Kusstatscher, V. (2011). Between merger and syndrome: The intermediary role of emotions in four cross-border M&As. *International Business Review*, 20(1), 27-47.

Sitkin, S. B. & Pablo, A. L. (1992). Reconceptualizing the determinants of risk behavior. *The Academy of Management Review*, 17(1), 9-38.

Smith, W. K. & Lewis, M. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *The Academy of Management Review*, 36(2), 381-403.

Smithson, M. (2009). The many faces and masks of uncertainty. In: G. Bammer and M. Smithson (eds.) *Uncertainty and Risk: Multidisciplinary Perspectives*: 13-25. London: Earthscan.

Sniazhko, S. (2019). Uncertainty in decision-making: A review of the international business literature. *Cogent Business & Management*, 6(1), 1-32.

Somer, M. J. & Bird, K. (1990). Managing the transition phase of mergers. *Journal of Managerial Psychology*, 5(4), 38-42.

Stake, R. E. (2000). Case studies. In: N. K. Denzin and Y. S. Lincoln (eds). *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage Publications Inc. pp. 435-454.

Stake, R. E. (2005). Qualitative Case Studies. In: N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (p. 443-466). Sage Publications Ltd.

Starbuck, W. H. & Milliken, F. J. (1988). Executives' perceptual filters: What they notice and how they make sense. In: D. Hambrick (ed.). *The Executive Effect:*

Concepts and Methods for Studying Top Managers. Greenwich. CT: JAI Press, pp. 35-65.

Steigenberger, N. (2016). The challenge of integration: A review of the M&A integration literature. *International Journal of Management Reviews*, 19(4), 408-431.

Stigliani, I., & Ravasi, D. (2012). Organizing thoughts and connecting brains: Material practices and the transition from individual to group-level prospective sensemaking. *Academy of Management Journal*, 55(5), 1232-1259.

Stinchcombe, A. (1991). The conditions of fruitfulness of theorizing about mechanisms in social science. *Philosophy of the Social Science*, 21: 367-388.

Strauss, A. L. & Corbin, J. M. (1998). Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory. Sage Publications, Inc.

Streatfield, P. J. (2001). *The Paradox of Control in Organizations*. Routledge: London.

Sudarsanam, P. S. (1995). *The Essence of Mergers and Acquisitions*. Prentice Hall: London, New York.

Sutton, R. I. (1987). The process of organizational death: Disbanding and reconnecting. *Administrative Science Quarterly*, 32(4): 542-569.

Symon, G. & Cassell, C. (2012). Qualitative Organizational Research: Core Methods and Current Challenges. London: Sage.

Taylor, J. R. & Van Every, E. J. (2000). *The Emergent Organization: Communication as Its Site and Surface*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Teerikangas, S. & Birollo, G. (2018). Leading M&As in a middle managerial role: A balancing act. In: J. Raitis; R. Harikkala-Laihinen; M. E. Hassett and N. Nummela (Eds.). *Socio-Cultural Integration in Mergers and Acquisitions: The Nordic Approach*. Palgrave Pivot, Springer International Publishing AG: Switzerland.

Teerikangas, S. & Very, P. (2006). The culture-performance relationship in M&A: From Yes/No to How. *British Journal of Management*, 17(1), 31-48.

Teerikangas, S., Very, P., & Pisano, V. (2011). Integration managers value-capturing roles and acquisition performance. *Human Resources Management*, 50(5), 651-683.

Thanos, I. C. & Papadakis, V. (2012). Unbundling acquisition performance: How do they perform and how can this be measured? In: Faulkner, D.; Teerikangas, S.

and Joseph, R. J. (eds.). *Handbook of Mergers and Acquisitions*. Oxford University Press. ISBN 9780199601462.

Thompson, J. D. (1967). Organizations in Action: Social Science Bases of Administrative Theory. New Brunswick: Transaction Publishers.

Tversky A. & Fox, C. R. (1995). Weighing risk and uncertainty. *Psychological Review*, 102(2), 269-283.

Vaara, E. (2000). Constructions of cultural differences in post-merger change processes: A sensemaking perspective on Finnish-Swedish cases. *Management,* 3(3), 81-110.

Vaara, E. (2003). Post-acquisition integration as sensemaking: Glimpses of ambiguity, confusion, hypocrisy, and politicization. *Journal of Management Studies*, 40(4), 859-894.

Vaara, E., Sarala, R., Stahl, G. K., & Björkman, I. (2012). The impact of organizational and national cultural differences on social conflict and knowledge transfer in international acquisitions. *Journal of Management Studies*, 49(1), 1-27.

Vaara, E. & Tienari, J. (2011). On the narrative construction of multinational corporations: An antenarrative analysis of legitimation and resistance in a cross-border merger. *Organizational science*, 22(2), 370-390.

Van den Bos, K., Wilke, H., & Lind, A. (1998). When do we need procedural fairness? The role of trust in authority. *Journal of Personality and Social Psychology*, 75(6), 1449-1458.

Van Maanen, J., Sorensen, J. B., & Mitchell, T. (2007): The interplay between theory and method. *The Academy of Management Review*, 32(4), 1145-1154.

Very, P., Lubatkin, M., & Calori, R. (1996). A cross-national assessment of acculturative stress in recent European mergers. *International Studies of Management & Organization*, 26(1), 59-86.

Viegas-Pires, M. (2013). Multiple levels of culture and post M&A integration: A suggested theoretical framework. *Thunderbird International Business Review*, 55(4), 357-370.

Vuori, T. O. & Huy, Q. N. (2016). Distributed attention and shared emotions in the innovation process: How Nokia lost the smartphone battle. *Administrative Science Quarterly*, 61(1), 9-51.

Waldman, D. A. & Javidan, M. (2009). Alternative forms of charismatic leadership in the integration of mergers and acquisitions. *The Leadership Quarterly*, 20(2), 130-142.

Wall, T. D., Cordery, J. L., & Clegg, C. W. (2002). Empowerment, performance, and operational uncertainty: A theoretical integration. *Applied Psychology: An International Review*, 51(1), 146-169.

Walsham, G. (1993). Interpreting Information System in Organizations. Wiley: Chichester.

Wand, Y. & Weber, R. (1993). On the ontological expressiveness of information systems analysis and design grammars. *Journal of Information Systems*, 3(4), 217-237.

Weber, R. A. & Camerer, C. F. (2003). Cultural conflict and merger failure: An experimental approach. *Management Science*, 49(4), 400-415.

Weber, Y., Shenkar, O., & Raveh, A. (1996). National and corporate culture fit in mergers/acquisitions: An exploratory study. *Management Science*, 42(8), 1215-1227.

Weber, Y., Tarba, S. Y., & Reichel, A. (2011). A model of the influence of culture on integration approaches and international mergers and acquisitions performance. *International Studies of Management & Organization*, 41(3), 9-24.

Weick, K. E. (1979). *The Social Psychology of Organizing* (2nd ed.). New York: McGraw-Hill.

Weick, K. E. (1995). *Sensemaking in Organizations*. Thousand Oaks, CA: Sage Publications.

Welch, C. & Piekkari, R. (2006). Crossing language boundaries: Qualitative interviewing in international business. *Management International Review*, 46(4), 417-437.

Welch, C. & Piekkari, R. (2017). How should we (not) judge the 'quality' of qualitative research? A reassessment of current evaluative criteria in International Business. *Journal of World Business*, 52(5), 714-725.

Welch, C., Piekkari, R., Plakoyiannaki, E., & Paavilainen-Mantymaki, E. (2011). Theorizing from case studies: Towards a pluralist future for international business research. *Journal of International Business Studies*, 42(5), 740-762.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180.

White, G. O., Boddewyn, J. J., & Galang, R. M. N. (2015). Legal system contingencies as determinants of political tie intensity by wholly owned foreign subsidiaries: Insights from the Philippines. *Journal of World Business*, 50(2), 342–356.

Whitelock, J. & Jobber, D. (2004). An evaluation of external factors in the decision of UK industrial firms to enter a new non-domestic market: an exploratory study. *European Journal of Marketing*, 38(11-12), 1437-1455.

Williamson, O. E. (1975). Market and Hierarchies: Analysis and Antitrust Implications. Free Press: New York.

Wright, W. & Ricks, A. (1994). Trends in international business research: twenty-five years later. *Journal of International Business*, 25(4), 687–701.

Yen, G. & Liao, N. N. H. (2003). On acculturation in business mergers: Empirical findings from a commercial bank's opinion survey in Taiwan. *Review of Pacific Basin Financial Markets and Policies*, 6(2), 141-166.

Zaheer, A., Castañer, X., & Sounder, D. (2013). Synergy sources, target autonomy, and integration in acquisitions. *Journal of Management*, 39(3), 604-632.

Appendices

Appendix 1. Interview Guide

Interview date: Place: Interviewee:		
AGENDA • Thanking an interviewee • Short introduction to the research • Confidentiality aspects		
QUESTIONS		
Background		
	1	How long have you been working for this company?
	2	What changes has this M&A brought to your work?
	3	In what position do you work now?
Uncertainty		
	4	How did you experience the news about official announcement of the acquisition last December?
	5	In December 2015 it will be a year since the M&A. What kind of an experience has it been so far?
	6	What changes did the M&A bring into your work? How do you see the changes now)
	7	Over this period, could you please, provide an example of a decision that was made in uncertainty? (or an example of uncertainty situation you have recently been involved in during the integration process?) -were those corner-stone decisions for the integration?
	8	What other kinds of uncertainty have you faced with?
	9	Can you talk more about uncertainty you estimated and then actually faced?
	10	Why did you face those uncertainties?
	11	How would you define uncertainty?
Uncertainty management		
	12	To your opinion, can this faced uncertainty be managed? What would be the ideal way to manage it?

	13	How easy/difficult was it to follow that principle of managing uncertainty in your actual decision-making?
	14	How do you manage uncertainty when making decisions?
Decision-making under uncertainty		
	15	How do you make decisions? Where do you start and how do you proceed? Examples?
	16	Can you talk more about decisions you planned and decisions you made? Examples?
	17	What kind of things, you think, influenced your decision-making? Examples?
Group level decision-making		
	18	How does decision-making happen in your lead-co-lead team? Examples?
	19	What decision-making model do you choose? Why?
Concluding thoughts		
	20	Is there anything you would like to add to any of the themes we have discussed?
	21	Do you have anything in mind that I have not asked, but is relevant and important for the discussed topic?
• Summarizing key points of the interview • Addressing any questions from the interviewee • Thanking interviewee for the interview		

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent business & management

MANAGEMENT | RESEARCH ARTICLE

Uncertainty in decision-making: A review of the international business literature

Sniazhana Sniazhko*

Received: 03 April 2019
Accepted: 29 July 2019
Published: 06 August 2019

*Corresponding author: Sniazhana Sniazhko, School of Management and Public Administration, University of Vaasa, PL 700, Vaasa 65101, Finland.
E-mail: sniazhana.sniazhko@uva.fi

Reviewing editor::
Etayankara Muralidharan, School of Business, MacEwan University, Edmonton, Canada

Additional information is available at the end of the article

Abstract: Uncertainty is a key contextual factor that affects the decision-making of multinational corporations on many types of international operation. However, the variety of ways in which uncertainty has been defined and studied in the international business literature, has contributed to a fragmented view of MNC behavior and of the role of uncertainty in international decision-making. Adopting a broad view of uncertainty, and by means of a systematic review, this paper examines the treatment of uncertainty in international decision-making in the IB literature and identifies directions for future research. The review organizes studies across 13 dimensions of uncertainty and eight approaches to managing it. The paper further identifies five characteristics of individual decision-makers that have been shown to impact their perceptions of uncertainty and their choice of uncertainty management approach. Based on this systematic review, the paper makes three main critical observations about existing research: inconsistency in the conceptualization and measurement of uncertainty, lack of diversity regarding the dimensions of uncertainty included in single studies, and downplaying the role of individual decision-makers. A research agenda is presented that offers suggestions on how future research might address these limitations.

Sniazhana Sniazhko

ABOUT THE AUTHOR

Sniazhana Sniazhko is a doctoral researcher at the School of Management and Public Administration at the University of Vaasa in Finland. Sniazhko's research interests are in the areas of international business, mergers and acquisitions, human resource management, and managerial decision-making analysis.

PUBLIC INTEREST STATEMENT

How do international companies make decisions about their international expansion, participation strategies, and their level of control and commitment when future returns are uncertain? This paper summarizes what we know about this complicated phenomenon of uncertainty by discussing 13 different dimensions of uncertainty that companies are likely to face during international decision-making, and presenting eight approaches for how to manage these uncertainties. The paper also identifies five characteristics of individual decision-makers in the companies that have been shown to impact their perceptions of uncertainty and their choices of uncertainty management approach. Lack of clear distinctions among different dimensions of uncertainty may result in misleading perceptions of the real environment and subsequently to risky and unjustified decisions. A better, research-based understanding about uncertainty and its management is important in increasing the chances of a company's survival in the international business environment.

cogent • oa

© 2019 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

Subjects: Risk Management; Strategic Management; International Business

Keywords: uncertainty; decision-making; MNC; systematic review

1. Introduction

Uncertainty and its role in decision-making is an important phenomenon that has received considerable research attention within international business (IB) studies over the last five decades. Uncertainty, defined as the lack of knowledge about the probabilities of the future state of events (Knight, 1921), has been shown to affect multinational corporations' (MNCs) speed of international expansion, their internationalization paths, entry mode choices, and level of commitment (e.g., Aharoni, 1966; Aharoni, Tihanyi, & Connelly, 2011; Ahsan & Musteen, 2011; Johanson & Vahlne, 1977; Liesch, Welch, & Buckley, 2011). The inability of a decision-maker to eliminate uncertainty completely constrains the effectiveness of decision-making and requires the adoption of approaches that either help to reduce, or to cope with, uncertainty. Recent studies commonly differentiate between exogenous and endogenous uncertainties, as well as environmental, industry, and firm uncertainties. They also advocate the diligent management of uncertainty to improve the chances of MNCs surviving in the international business environment (Certo, Connelly, & Tihanyi, 2008).

Although uncertainty has been incorporated into many studies on decision-making within MNCs, the IB literature lacks clear distinctions between different dimensions of uncertainty and often treats the concept inconsistently. Research distinguishes between environmental and firm uncertainties, yet the dimensions used to capture such uncertainties vary significantly among studies. This inconsistency is problematic because it provides conflicting results about MNCs' decision-making under uncertainty, impedes knowledge development and a systematic treatment of uncertainty, and presents an incomplete picture of the role uncertainty plays in international decision-making. In terms of practice, the lack of clear distinctions among different dimensions of uncertainty may result in misleading perceptions of the real environment and subsequently to risky and unjustified decisions (Brouthers, 1995).

In light of the above, this paper offers an in-depth analysis of what is known about uncertainty in the IB literature. Accordingly, it first aims to provide insights into the ways in which uncertainty is treated and managed in decision-making in the theoretical and empirical IB literature, and further, to address the uncertainty treatment issues in international decision-making arising in the articles reviewed. Overall, this paper seeks to offer a comprehensive overview of existing knowledge on uncertainty in the IB literature, and to suggest areas for future research. In doing so, the paper contributes to the literature on decision-making in IB in the following three ways. First, it addresses the inconsistent conceptualization and measurement of uncertainty by organizing and synthesizing the dimensions of uncertainty into an integrative framework that should be useful to scholars in this field. Second, the paper presents arguments for why being more consistent in the use of concepts and measures of uncertainty, using a wider spectrum of different kinds of uncertainties, and integrating the characteristics of the key individual decision-makers, would advance the field and add significantly to the predictive validity of theoretical models. This serves to highlight key issues that should be considered when deciding how and why to incorporate different dimensions of uncertainty into empirical studies on MNC decision-making. Finally, the paper contributes to the IB literature by proposing an agenda for future research on decision-making under uncertainty. More specifically, the agenda provides suggestions for how the field could benefit from studies that include (1) dimensions of uncertainty that are more conceptually and statistically parsimonious and the greater use of subjective measures of uncertainty; (2) a wider spectrum of uncertainties, in particular firm dimensions of uncertainty, within single studies; and (3) the role of individual decision-makers in how different dimensions of uncertainty are perceived and managed within the MNC. This paper complements existing reviews on similar topics (e.g., Ahsan & Musteen, 2011; Shepherd & Rudd, 2014) by providing a more detailed categorization of uncertainty and an extended critical review of uncertainty management in international decision-making, thus making the review of broader value to scholars in different management disciplines.

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

2. Method

The current research adopts the systematic literature review method, which offers an explicit, trustworthy, and reproducible method to minimize bias, thus providing more reliable findings for the evaluation and interpretation of previous research relevant to a particular theme of interest (Alderson, Green, & Higgins, 2004). Since this paper integrates a framework-led approach to the synthesis of the literature, the practices recommended by Denyer and Tranfield (2009) for conducting a systematic literature review are most relevant. These practices have been designed particularly for management and organization studies and have been used by other scholars to conduct systematic literature reviews in the business field (e.g., Ellwood, Grimshaw, & Pandza, 2016). Denyer and Tranfield (2009) develop four key principles that should be evident within a systematic literature review: transparency and inclusivity, and it should also be explanatory and heuristic. In terms of *transparency*, this paper explicitly describes the processes and methods employed in the review[1]. To demonstrate *inclusivity* and the quality of information sources, this paper places emphasis on the reviewed articles' reported methods of data collection and analysis, with detailed information on uncertainty measures. This paper aims to provide an *explanation* of conflicting extracts from individual studies and to integrate them into a holistic view on the treatment of uncertainty in IB studies. The result of this review is *heuristic* in the sense that it offers suggestions that may help in addressing the mixed findings regarding the impact of uncertainty on MNC decision-making.

2.1. Literature search

To ensure the rigor of this review, the author consulted an information specialist in the field of business studies, who assisted in the process of identifying relevant keywords, and searching select databases with the chosen keywords. The following keywords were used to locate relevant articles: (uncertainty OR complexity OR ambiguity OR risk OR dynamism OR "high-velocity" OR instability OR equivocality) AND ("decision-making" OR decisions OR decision) AND ("international business" OR "international businesses" OR "multinational enterprise" OR "multinational enterprises" OR "multinational corporation" OR "multinational corporations"). Using these keywords, searches were conducted in the EBSCO, ABI Inform ProQuest, Elsevier Science Direct, and Emerald databases. These databases are recognized as the key sources for retrieving relevant, up-to-date, and historical information in the business field, and are commonly used by other scholars to conduct either systematic (e.g., Ellwood et al., 2016) or other kinds of literature reviews (e.g., Radaelli & Sitton-Kent, 2016). The preliminary searches within the databases using the above-mentioned keywords identified 495,753 articles.

2.2. Selection process

The two fundamental steps in a systematic literature review are (i) deciding on the inclusion and exclusion criteria of studies, and (ii) assessing the quality of the studies to be included (Briner & Walshe, 2015). The preliminary extensive list of identified articles was narrowed down to specifically relevant theoretical, conceptual, or empirical articles that focus on uncertainty in international decision-making by applying the following three main inclusion criteria. *First*, in order to be included, articles must be peer-reviewed studies published in scientific journals with the publication time period 1921[2]–2017, and ranked at levels 3, 4, or 4* according to the Academic Journal Guide (ABS, 2015). Earlier reviews suggest relying on top peer-reviewed academic journals because such journals are the most influential on the IB field (Hennart & Slangen, 2015), as gatekeepers of quality research (e.g., Vaara & Whittington, 2012), and are particularly influential in research on uncertainty (e.g., Miller, 1992), providing explicit information on the various definitions of uncertainty and/or its measurements. By applying the first inclusion criterion, the search generated a long list of 4,861 articles.

Second, the articles included in the review should have an explicit focus on the impact of uncertainty (or its synonyms)[3] on MNCs' international strategic (e.g., decisions about foreign direct investment and related strategies, entry mode choices, and foreign partners and market selection), and operational decisions (e.g., product development, staffing, inter-firm trade). Reading the titles

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

of the articles and removing duplicates from the list reduced the number of articles to 581. Most of the excluded articles related to non-management topics (e.g., technical or engineering articles, articles with mathematical models, or articles in neuroscience). The abstracts of the 581 remaining articles were read, which resulted in a total of 278 articles being deemed relevant for the review. The articles that were left out focused on other units of analysis (e.g., focus on the country) rather than on MNCs.

The *third* and final inclusion criterion was that articles should either look at the impact of uncertainty on MNCs' international decision-making, or examine the kind of uncertainty management methods used. This criterion is applied to examine how the recognized uncertainties shape MNCs' decision-making under uncertainty and how MNCs respond to these uncertainties. Articles that met all three inclusion criteria were considered for the review, producing a final total of 114 articles (18 conceptual; two theoretical; and 94 empirical, of which 84 were quantitative, six were qualitative, two used mixed methods, and two a simulation model). All the articles provide an explicit definition of uncertainty (or its synonyms) in terms of its dimensions (i.e., environmental, industry, or firm uncertainties).

Among the 114 articles reviewed, seven of the conceptual articles do not define uncertainty in terms of its dimensions and describe uncertainty as a general term for an MNC's lack of information about its external market. Further, these articles do not provide any measures of uncertainty. However, even though the inclusion criterion was not fully met for these articles, they were still included due to their rich description and discussion of relevant concepts, and detailed reviews of the role of uncertainty in MNCs' decision-making. Empirical papers that did not present an explicit definition of uncertainty dimensions and/or its measures were excluded from the review since the lack of an explicit description of uncertainty measures in an empirical article brings into question the contribution of the research.

Furthermore, not all articles among the selected 114 elaborate on MNCs' uncertainty management methods. A group of 18 papers (four conceptual, one theoretical, and 13 empirical) did not provide an explicit examination of uncertainty management methods, but still became part of the review because they either offered detailed measures of uncertainty dimensions or incorporated different theoretical perspectives offering diverse views on the impact of uncertainty on MNCs' decision-making. Finally, this systematic review is not exhaustive in the sense that studies that are published in book format, in other journals, or in languages other than English were excluded. A summary of the selection process and exclusion criteria is presented in Table 1.

The selected 114 articles are distributed among the following 23 journals (number of articles per journal in parentheses): *Academy of Management Journal* (4), *Academy of Management Review* (1), *Administrative Science Quarterly* (1), *British Journal of Management* (2), *Business Horizons* (1), *Columbia Journal of World Business* (1), *Decision Sciences* (1), *European Journal of Marketing* (3), *International Marketing Review* (7), *International Business Review* (18), *International Journal of Operations and Production Management* (1), *Journal of Business Research* (5), *Journal of International Business Studies* (25), *Journal of International Management* (7), *Journal of Management Studies* (5), *Journal of Management* (2), *Journal of Marketing Research* (1), *Journal of World Business* (13), *Long Range Planning* (1), *Management International Review* (5), *Management Science* (1), *Organizational Science* (4), and *Strategic Management Journal* (5).

2.3. Analysis of selected articles

To maintain consistency with Denyer and Tranfield's (2009) systematic review practices, analysis proceeded through three main phases. Owing to the heterogeneity of the selected articles' theoretical frameworks and empirical methods, the analysis was descriptive in nature. First, the articles were analyzed in terms of the number and type of uncertainties addressed (i.e., the terms that were used and defined in the article), to compile a comprehensive list of different uncertainties that receive the most attention. Articles were labeled with as many types of uncertainties as

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

Table 1. Summary of the article selection process

Method	**Inclusion/exclusion criteria**	**Number of articles remaining**
Keywords search in databases	Exhaustive list of articles	4861
Reading of article's title	Does the article address the main subject of the review? The following articles were excluded: • Technical or engineering articles • Articles in the area of psychology or neuroscience • Articles related to finance/banking • Articles on mathematical models	581
Reading of abstract	Does the article focus on uncertainty and its impact on MNCs' international decision-making? The following articles were excluded: • Articles focusing on uncertainty/risk in terms of capital budgeting procedures or cost of capital formulation • Articles focusing on economic success of countries • Articles taking financial institutions as the unit of analysis	278
Reading of full paper	Does the article offer a detailed description of the uncertainty (or its synonyms) dimension/measure? Does the article test/investigate/discuss the impact of uncertainty (or its synonyms) on MNCs' international decision-making? Does the article test/investigate/discuss MNCs' uncertainty management methods? The following articles were excluded: • Articles mentioning uncertainty (or its synonyms) without defining its dimensions or measures • Articles not identifying/discussing/testing uncertainty management methods	114

were identified in them. To provide a parsimonious categorization of uncertainty, Miller's (1992) classification[4] and definition of different types of uncertainty that refers to 13 dimensions of uncertainty grouped into three main categories was applied (See Figure 1).

The second phase of the analysis focused on identifying how uncertainty management approaches have been defined in the reviewed articles, and which approaches are most commonly applied by MNCs. Definitions derived from both Miller (1992) and Simangunsong, Hendry, and Stevenson (2012) were used to group the identified approaches, which refer to two main methods of uncertainty management (reducing and coping), under which there are eight uncertainty management approaches (See Figure 1).

In the final phase of analysis, the identified uncertainty dimensions and uncertainty management approaches were analyzed in terms of the capacity to add value to our understanding of MNCs' international decision-making (i.e., "how do the identified uncertainty dimensions and uncertainty management approaches enhance our understanding of MNCs" international decision-making?'). The review revealed several inconsistencies and debates among IB scholars about the impact of uncertainties on MNCs' decision-making and the determinants of MNC choices about uncertainty management approaches.

Sniazhko, Cogent Business & Management (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692
cogent • business & management

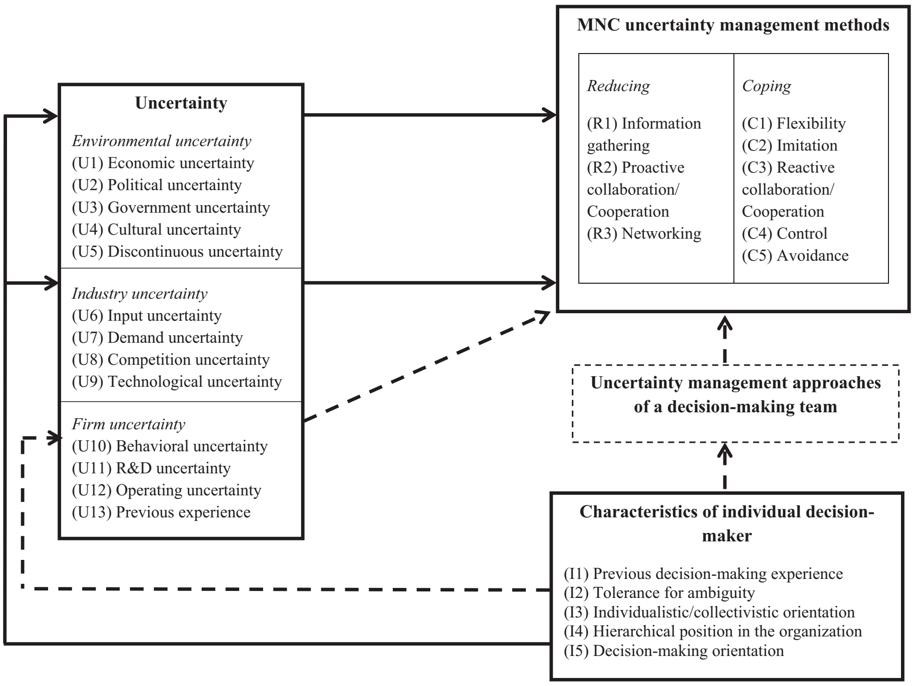

Figure 1. Integrative conceptual framework.

3. Findings

This paper presents an integrated framework (Figure 1) based on classifications of uncertainty dimensions and approaches to managing uncertainty. The main reason for using an integrated framework is the inconsistency in existing research regarding how concepts are used (See Table 2). This has made it problematic to draw conclusions about what we know about the role of uncertainty in MNCs' decision-making. The framework comprises uncertainty dimensions that have been modified based on the classification by Miller (1992) and also uncertainty management methods modified based on the work of Miller (1992) and Simangunsong et al. (2012). The framework was modified in response to the evidence emerging from the systematic literature review to include both modified and new types of uncertainty and uncertainty management approaches that were not anticipated in the original frameworks by Miller (1992) and Simangunsong et al. (2012). The five characteristics of individual decision-makers that were recognized in the reviewed literature as either having an impact on individual decision-makers' perceptions of uncertainty, or on the choice of uncertainty management approach, are not based on any pre-existing framework but emerged from this review.

The framework is contingency-based and draws on both contextual and individual influences on MNCs' uncertainty management in international decision-making. The contextual part is represented by different dimensions of uncertainty, both external and internal to the firm, which MNCs respond to in different ways. The individual influences concern how the characteristics of individual decision-makers influence both their perceptions of uncertainty and the MNC's approaches to uncertainty management. The interlinkages between the different elements of the framework are discussed in connection with this paper's proposed research agenda.

3.1. Dimensions of uncertainty

In order to promote greater consistency in the conceptualization of uncertainty dimensions in future research, this paper adopts Miller's (1992) classification of uncertainty. This comprises 13 dimensions of uncertainty organized under three different categories of uncertainty:

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692
cogent • business & management

Table 2. Dimensions and measures of uncertainty in the IB literature

	Uncertainty dimensions	Terminology used	Uncertainty measures used	Example literature
Environmental uncertainties	Economic (U1) Uncertainty caused by fluctuations in economic activities: e.g., foreign currency exchange, infrastructure, efficiency of local institutions, inflation	Economic	*Country risk* measures by Erramilli and Rao (1993), Gatignon and Anderson (1988); high-risk countries measures by Goodnow and Hansz (1972)	Erramilli & D'Souza, 1995
		Institutional uncertainty	Subjective measures of *institutional voids* and *institutional uncertainty*	Santangelo & Meyer, 2011
	Political (U2) Uncertainty caused by inability to predict political developments: e.g., war resolution, changes in political turmoil	Country risk	*Host country risk* assessed from International Country Risk Guide, Business Environmental Risk Intelligence	Gaba et al., 2002
		Investment uncertainty	Subjective measures of *investment uncertainty* measured by the stability of the political, social and economic conditions, the risk of repatriating income, the risk of government actions against the firm	K. D. Brouthers et al., 2008
	Government (U3) Uncertainty caused by inability to predict regulatory developments: e.g., reforms, barriers to income repatriation, regulations, level of corruption	Government	Subjective measures on *government environmental policy* measured by scale on tax policies, laws, regulations, enforcement of laws	Lewis & Harvey, 2001
		Institutional environment	MNCs' perceptual measure on *institutional environment* measured by turbulence in government administration, regulations on domestic sales, export and import requirements, communication gaps, expatriates' regulations, sourcing of raw materials, restrictions on components' production, restrictions on ownership, requirements for technology transfer	Chiao et al., 2010
	Cultural (U4) Uncertainty about collective action when people are faced with differences between their own values and values of the institutions they are part of	Cultural	*Cultural distance* measured by a Euclidean distance version of Kogut and Singh (1988) index	Slangen & van Tulder, 2009

(Continued)

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692
cogent business & management

Table 2. (*Continued*)

	Uncertainty dimensions	Terminology used	Uncertainty measures used	Example literature
		Internal uncertainty	*Cultural distance* measures by Kogut and Singh (1988) based on cultural dimensions by Hofstede (1980)	Erramilli & D'Souza, 1995
	Discontinuous (U5) Uncertainty caused by nature itself, terrorist attacks, or technological disasters	Discontinuous risk	*Disaster severity* measured through no. incidents, no. people killed, duration of disaster	Oetzel & Oh, 2014
		Environmental issues	Subjective measures on *environmental issues* measured by climate change, pollution of air, water, soil, eco-efficiency, resource depletion, social welfare, eco-sufficiency	Lewis & Harvey, 2001
Industry uncertainties	Input (U6) Uncertainty associated with production inputs, acquisition of adequate quantities and qualities of inputs into production process	Industry risk	Subjective measures on *industry risk* measured by availability of inputs, raw materials and components; prices of inputs, raw materials and components; availability of human resources; availability of financial capital	Liu, Gao, Lu, & Lioliou, 2016
		Structural uncertainty	*Structural uncertainty* measured as geometric average of standard deviations in output, sales, and profit of the industry in which the firm operates	Luo, 2003
	Demand (U7) Uncertainty that relates to unexpected changes in demand, lack of availability of complementary products, and presence of substitute products	Munificence	*Industry sales* measured as average growth in net sales and operating income in the dominant industry as in Dess and Beard (1984)	Keats & Hitt, 1988
		Product market uncertainty	*Product market growth* measured by a geometric average of growth rates of gross output and the number of enterprises	Gaba et al., 2002
	Competition (U8) Unpredictability of the future state of competition in the host country market	Market turbulence	Subjective measures on market *turbulence measured* by changes in consumers and competitors faced by a firm	Tseng & Lee, 2010
		Dynamism	Subjective measures on *dynamism* measured by perceptions of competitors' actions	Baum & Wally, 2003

(*Continued*)

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692
cogent • business & management

Table 2. (*Continued*)

	Uncertainty dimensions	Terminology used	Uncertainty measures used	Example literature
	Techno-logical (U9) Uncertainty about the trade-offs between durability benefits vs old technology cost	Technological uncertainty	Subjective measures on *environmental technology* measured by product environmental attributes and impact, new products introduction, changes in production process	Lewis & Harvey, 2001
		Turbulence	*Technological turbulence* assessed by measures on competitive intensity, threats and opportunities from changes in firm's technological environment by Jaworski and Kohli (1993) and Cadogan, Paul, Salminen, Puumalainen, and Sundqvist (2001)	Cadogan et al., 2003
Firm uncertainties	Behavioral (U10) Inability to predict the actions and plans of potential partners or members within the firm	Behavioral	Subjective measures on the *behavior of environmental stakeholders* measured by scale on investors, community, supply chain, industry, opinion formers, regulators	Lewis & Harvey, 2001
		Control uncertainty	Subjective measures of *control uncertainty* from Brouthers and Brouthers (2003) measured by the cost of marketing and enforcing contracts, uncertainty over maintaining quality standards, the risk of dissemination of proprietary knowledge	Brouthers et al., 2008
	R&D (U11) Unpredictability of R&D results	Corporation sources	Not provided (conceptual paper)	Haley, 2003
		Venture-level uncertainty	*Return on investment* is measured by VentureXpert database classification—start-up, early stage, expansion, later stage	Liu & Maula, 2016
	Operating (U12) Uncertainty about operation of the firm and employees' productivity	Operation risk	Not provided (conceptual paper)	Miller, 1992
		Total strategic international risk	Subjective measures on *total risk* measured by averaging results of perceptions of control and market complexity risks	Brouthers, 1995

(*Continued*)

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

Table 2. (*Continued*)

	Uncertainty dimensions	Terminology used	Uncertainty measures used	Example literature
	Previous experience (U13) Firms' previous operating experience that has an impact on a host country risk perception and management approaches	Previous experience	Subjective measure on *international experience* measured by the ratio of foreign sales to total sales, the ratio of foreign assets to total assets, the ratio of foreign fixed assets to total fixed assets, the ratio of foreign employees to total employees and analyzed by exploratory factor analysis	Chiao et al., 2010
		Operational uncertainty	Operational uncertainty assessed as no. international operational modes a firm had undertaken prior to its entry into a foreign country; no. years a firm had been involved in international operations	Rhee & Cheng, 2002

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

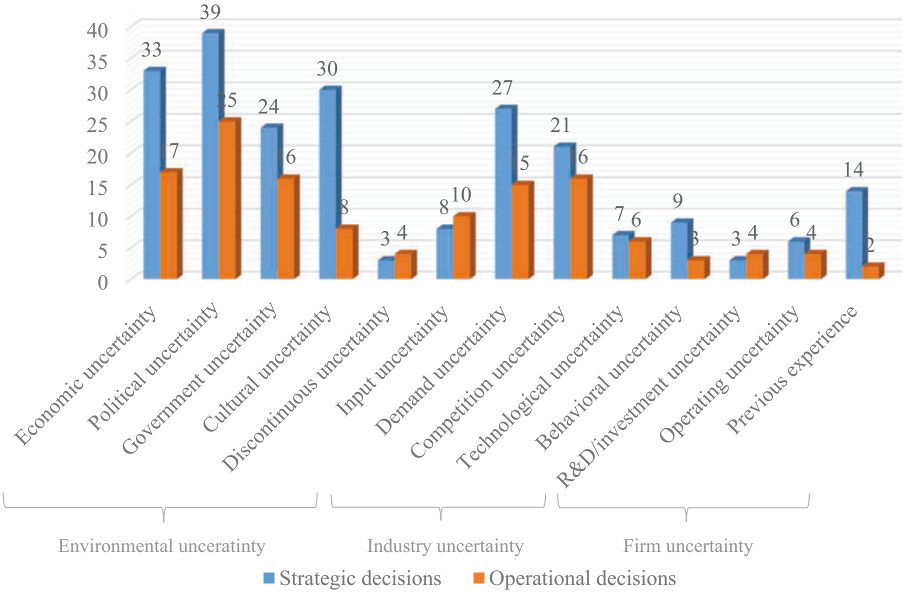

Figure 2. Number of articles on researched dimensions of uncertainty.

environmental, industry, and firm uncertainties. Miller's (1992) framework was chosen because it is exhaustive and highly cited in IB research (e.g., Ahsan & Musteen, 2011; Clark, Li, & Shepherd, 2017; Erramilli & D'Souza, 1995; Oetzel & Oh, 2014). One potential drawback is that it was not based on a systematic review of the literature, nor has it been empirically examined in its complete original form. Nonetheless, this paper takes Miller's (1992) classification as a starting point and builds on it as follows: First, a closer examination of the IB literature resulted in an extension of the industry category of uncertainties by one dimension (i.e., *technological*). Second, the firm category of uncertainties was modified (i.e., removing *liability* and *credit* dimensions of uncertainty and adding *previous experience*), the *social* and *product* dimensions of uncertainty were relabeled *cultural* and *demand* uncertainties, and the *natural* dimension of uncertainty was relabeled *discontinuous* uncertainty. The 13 dimensions of uncertainty identified in the literature review illustrate the multifaceted and complex nature of uncertainty in IB. However, inconsistent use and measurement of the concepts made drawing conclusions on the existing knowledge of the role of uncertainty problematic. Although most scholars agree that MNCs employ different uncertainty management approaches in their decision-making, what is meant by uncertainty and how it is measured differs from study to study. Table 2 presents the most significant differences in conceptualization and measurement among the reviewed studies: studies are using different concepts of uncertainty for capturing the same dimension of uncertainty, studies use the same name of concepts for different uncertainties across categories, and studies are using different measures for the same dimension of uncertainty.

One of the main objectives of this paper was to systematically review the treatment of uncertainty in decision-making in the IB literature. Figure 2 illustrates that uncertainties in the *environmental uncertainty* category have attracted the greatest research attention both in regard to MNC strategic and operational decision-making. In particular, studies have examined environmental uncertainty in terms of political (U2) (e.g., Agarwal & Ramaswami, 1992; Delios & Henisz, 2003a; Kobrin, 1979), economic (U1) (e.g., Brouthers & Dikova, 2010; Prater, Biehl, & Smith, 2001; Song, 2015) and government (U3) (Akhter & Robles, 2006; Chiao, Lo, & Yu, 2010; Eroglu, 1992) uncertainties in the host country, and thus focus on the formal part of a country's environment. Other studies examine environmental uncertainty in terms of cultural uncertainty (U4) (e.g., Cho &

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692
cogent business & management

Padmanabhan, 2005; Dow, Cuypers, & Ertug, 2016) that emerges between the home and host countries, and therefore focus on the informal part of the country's environment.

Several other studies have directed attention on to the impact of *industry uncertainties*. For example, Elango and Sambharya (2004) found that competition and demand uncertainties have a significant impact on MNCs' entry mode decisions. Gray (1994) places more focus on technological uncertainty in MNCs' entry mode decisions. Among the different dimensions of uncertainty in the *firm uncertainty* category, the MNC's previous experience has attracted the greatest research attention and is broadly recognized as having an impact on an MNCs' identification and perception of various other dimensions of uncertainties (Brouthers, 1995), entry mode choice decisions (Brouthers, Brouthers, & Werner, 2008), or location decisions (Delios & Henisz, 2003b).

Although IB scholars acknowledge the existence of different categories of uncertainty, studies investigating the impact of uncertainty dimensions *within* one category (e.g., that of the environment or industry uncertainty) dominate in the IB field. Among the 114 reviewed studies, 32 investigate the impact of environmental dimensions of uncertainty (with 18 studies —on operational decisions, seven studies on entry mode, four studies on location decisions, two studies on divestment, and one study on an international joint venture ownership decision), and 14 studies investigate the impact of industry dimensions of uncertainty (with nine studies on operational decisions, three studies on entry mode, one study on location, and one study on decision speed). There is a gradual move toward the integration of uncertainties from different categories: 20 studies investigate the simultaneous impact of both environmental and industry dimensions of uncertainty. Nevertheless, empirical research on different categories of uncertainty has generally taken place across studies rather than within single studies. Articles that do consider the impact of two or all three categories of uncertainties are mostly conceptual. Table 3 summarizes IB studies based on the number of uncertainty categories studied per article.

3.2. Uncertainty management

Turning to the approaches MNCs apply when managing uncertainty, Miller's (1992) and Simangunsong et al.'s (2012) uncertainty management frameworks were used as a starting point[5]. More specifically, this review incorporates Simangunsong et al.'s (2012) two uncertainty management methods: *uncertainty reduction* (referred to as "financial risk" management by Miller), and *uncertainty coping* (referred to as "strategic management" by Miller). Uncertainty reduction minimizes an MNC's exposure to particular uncertainties without changing the firm's strategy (Miller, 1992). Uncertainty reduction is a natural, primary motivator and fundamental need that guides MNCs' behavior (Beckman, Haunschild, & Phillips, 2004; Mullin & Hogg, 1998). Uncertainty coping, on the other hand, impacts the MNC's exposure across a wide range of uncertainties and in some cases requires the MNC to change its strategy (Miller, 1992). Although the two concepts are the same in both frameworks, this paper adopts Simangunsong et al.'s (2012) terminology since the reviewed IB literature most often refers to uncertainty management in terms of reduction and coping rather than financial and strategic risk management. Table 4 presents the extant literature against the two methods of uncertainty management: three approaches to reduction, and five approaches to coping.

3.3. Uncertainty reduction

The review of the selected articles facilitated the identification of three approaches to uncertainty reduction: information gathering (R1), proactive collaboration/cooperation (R2), and networking (R3). Information gathering (R1) and networking (R3) emerged solely from the reviewed literature and are not mentioned in either of the two frameworks. Collaboration (R2) emerged from the literature review and is also listed among Simangunsong et al.'s (2012) approaches to uncertainty reduction. Since the reviewed literature uses the terms collaboration and cooperation interchangeably, this paper integrates them.

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

Table 3. Uncertainty categories and frequency in the reviewed articles

MNC decision type	Article type	Number of studies	Uncertainty categories considered per study		
			Environmental uncertainties	Industry uncertainties	Firm uncertainties
Operational	Empirical	**18**			
	Example literature: Desbordes, 2007; Gaur et al., 2007; Jiménez, 2010; Jiménez, Benito-Osorio, Puck, & Klopf, 2017; Jiménez & Delgado-Garciá, 2012; Jiménez, Luis-Rico, & Benito-Osorio, 2014; Keillor, Wilkinson, & Owens, 2005; Kelly & Philippatos, 1982; Kennedy, 1984				
Operational	Empirical	**9**			
	Example literature: Celly, Spekman, & Kamauff, 1999; Chattopadhyay, Glick, & Huber, 2001; Chen & Kamal, 2016; Cui, Griffith, Cavusgil, & Dabic, 2006; Hodgkinson et al., 2016; Keats & Hitt, 1988; Lee & Makhija, 2009a; Liu et al., 2012				
Operational	Empirical	**10**			
	Example literature: Achrol & Stern, 1988; Gaba et al., 2002; Galang, 2012; Griffith, Harmancioglu, & Droge, 2009; Grunert et al., 2010; Liu et al., 2016; Luo, 2003; Manolis, Nygaard, & Stillerud, 1997; Mascarenhas, 1982				
Operational	Empirical	**3**			
	Example literature: Beckman et al., 2004; Ottesen & Grønhaug, 2004; Sartor & Beamish, 2014				
Operational	Empirical	**1**			
	Example literature: Xu et al., 2004				
Operational	Conceptual/ Theoretical	**4**			
	Example literature: Akhter & Choudhry, 1993; Di Gregorio, 2005; Spich & Grosse, 2005				
Operational	Conceptual	**3**			
	Example literature: Haley, 2003; Miller, 1992; Sashi & Karuppur, 2002				
Entry mode	Empirical	**7**			
	Example literature: Dow et al., 2016; Erramilli & D'Souza, 1995; Hong & Lee, 2015; López-Duarte & Vidal-Suárez, 2010; Malhotra, Lin, & Farrell, 2016; Slangen & van Tulder, 2009; Williams, Lukoianova, & Martinez, 2017				
Entry mode	Empirical	**3**			
	Example literature: Cadogan et al., 2003; Elango & Sambharya, 2004; J. Li & Li, 2010				
Entry mode	Empirical	**8**			

(Continued)

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

Table 3. (*Continued*)

MNC decision type	Article type	Number of studies	Uncertainty categories considered per study		
			Environmental uncertainties	Industry uncertainties	Firm uncertainties
	Example literature: L. E. Brouthers, Brouthers, & Werner, 2000; K. D. Brouthers, Brouthers, & Werner, 2002; Campa, 1994; Dickson & Weaver, 1997; Gray, 1994; Luo, 2001; Morschett et al., 2010; Sanchez-Peinado & Pla-Barber, 2006				
Entry mode	Empirical	**7**			
	Example literature: Brouthers, 1995; Brouthers et al., 2008; Brouthers & Dikova, 2010; Chiao et al., 2010; Li & Rugman, 2007; Whitelock & Jobber, 2004; Zafar, Mohamad, Tan, & Johnson, 2002				
Entry mode	Empirical	**7**			
	Example literature: Agarwal & Ramaswami, 1992; Brouthers & Brouthers, 2003; Cho & Padmanabhan, 2005; Delios & Henisz, 2003a; Henisz & Delios, 2001; Ji & Dimitratos, 2013				
Entry mode	Empirical	**1**			
	Example literature: Sutcliffe & Zaheer, 1998				
Entry mode	Conceptual	**2**			
	Example literature: Akhter & Robles, 2006; Eroglu, 1992				
Location	Empirical	**4**			
	Example literature: Arregle, Miller, Hitt, & Beamish, 2016; Duanmu, 2012; Kraus, Ambos, Eggers, & Cesinger, 2015; Oetzel & Oh, 2014				
Location	Empirical	**1**			
	Example literature: Dowell & Killaly, 2009				
Location	Empirical	**2**			
	Example literature: Delios & Henisz, 2003b; Lien & Filatotchev, 2015				
Location	Conceptual	**1**			
	Example literature: Burgers & Padgett, 2009				
Location	Conceptual	**1**			
	Example literature: Siqueira, Priem, & Parente, 2015				
Divestment	Empirical	**2**			
	Example literature: Berry, 2013; Song, 2014				

(*Continued*)

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

Table 3. (*Continued*)

MNC decision type	Article type	Number of studies	Uncertainty categories considered per study		
			Environmental uncertainties	Industry uncertainties	Firm uncertainties
Decision speed	Empirical	**1**			
	Example literature: Baum & Wally, 2003				
Decision speed	Empirical	**1**			
	Example literature: Rhee & Cheng, 2002				
IJV ownership	Empirical	**1**			
	Example literature: Piaskowska & Trojanowski, 2014				
IJV ownership	Empirical	**2**			
	Example literature: Cuypers & Martin, 2010; Liu & Maula, 2016				
IJV ownership	Empirical	**2**			
	Example literature: Mayrhofer, 2004; Tsang, 2005				

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692
cogent • business & management

Table 4. Approaches to uncertainty management in the IB literature

	Uncertainty management approaches	Description	Example literature
Uncertainty Reduction	(R1) Information gathering	Complete uncertainty reduction: gathering information until the decision-making point where analytic comprehensiveness of the environment is achieved.	Grunert et al., 2010; Ji & Dimitratos, 2013; Keats & Hitt, 1988; Ottesen & Grønhaug, 2004; Petersen et al., 2008
	(R2) Proactive collaboration/cooperation	Collaboration with local subsidiaries to reduce uncertainties related to the general environment, industry and firm.	Brouthers et al., 2008; Slangen & van Tulder, 2009
	(R3) Networking	Generation of information about a firm's market through establishing new or reinforcing already existing networks, the dissemination of this information to relevant decision-makers, and development and implementation of responses.	Beckman et al., 2004; Luo, 2003
Uncertainty Coping	(C1) Flexibility	Organizational ability to adapt to uncertain and fast-changing environmental conditions: - Diversification of geographic markets or products, -Operational adaptation.	Chattopadhyay et al., 2001; Chiao et al., 2010; Lee & Makhija, 2009a; Lee & Makhija, 2009b; Li & Li, 2010; Liu et al., 2012; Sanchez-Peinado & Pla-Barber, 2006; Sashi & Karuppur, 2002
	(C2) Imitation	Imitation of rival organizations' strategies and actions.	Gaba et al., 2002; Miller, 1992
	(C3) Reactive collaboration/cooperation	Multilateral agreements that are used to increase the predictability of environmental conditions: -JV or Alliances, -Franchising/Licensing, -Agreements.	Akhter & Robles, 2006; Brouthers, 1995; Brouthers & Brouthers, 2003; Brouthers et al., 2008; Burgers & Padgett, 2009; Cuypers & Martin, 2010; Dickson & Weaver, 1997; Eroglu, 1992; Erramilli & D'Souza, 1995; Miller, 1992; Sutcliffe & Zaheer, 1998
	(C4) Control	Market control to threaten and push competitors into more predictable behavior Unilateral control of operations: -Vertical integration, -Horizontal integration, -Market Control (includes the speed of the decision).	Akhter & Robles, 2006; Baum & Wally, 2003; Brouthers et al., 2002; Brouthers & Brouthers, 2003; Brouthers et al., 2008; Brouthers & Dikova, 2010; Burgers & Padgett, 2009; Mayrhofer, 2004; Morschett et al., 2010; Sanchez-Peinado & Pla-Barber, 2006; Tseng & Lee, 2010
	(C5) Avoidance	Postponement of the company's actions until uncertainty level faced by the company is acceptable.	Dowell & Killaly, 2009; Whitelock & Jobber, 2004

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

Information gathering (R1) as an uncertainty reduction approach is used by MNCs that avoid risky decisions and act when the gathered information is considered enough to achieve analytical comprehensiveness of the environment (e.g., Brouthers et al., 2008; Ji & Dimitratos, 2013). Studies reveal that information gathering is an approach to uncertainty reduction where the MNCs scan the external environments and collect necessary data without the involvement of other partners. Information gathering is the most frequently implemented approach adopted to reduce uncertainty and is primarily used to minimize demand, competition, and cultural uncertainties (e.g., Cadogan, Cui, & Li, 2003; Grunert, Trondsen, Campos, & Young, 2010; Keats & Hitt, 1988; Petersen, Pedersen, & Lyles, 2008; Rhee & Cheng, 2002).

Proactive collaboration/cooperation (R2) is another way to increase the predictability of the conditions in the external environment. Information sharing is an essential part of collaboration/cooperation (Simangunsong et al., 2012). The IB literature talks about collaboration/cooperation in the form of vertical integration and contractual agreements that MNCs have with their local partners for collaborative planning and forecasting to reduce external uncertainties (Brouthers et al., 2008; Slangen & van Tulder, 2009). The literature suggests that environmental uncertainties and the dimensions of industry uncertainties such as demand and competition can be reduced through collaboration/cooperation with local partners (Brouthers et al., 2008; Slangen & van Tulder, 2009).

Uncertainty can be reduced through networking (R3). As IB studies reveal, uncertainty reduction through networking (R3) happens when the MNC collects data through its social relationships and via the reinforcement of existing networks (Luo, 2003; Ottesen & Grønhaug, 2004). As such, proactive collaboration/cooperation (R2) can be a part of networking (R3) and happens within larger networks (Ottesen & Grønhaug, 2004). In the IB literature, networking is primarily used to reduce industry uncertainties: input, demand and competition (e.g., Beckman et al., 2004; Luo, 2003).

3.4. Uncertainty coping

The reviewed IB literature identifies five approaches that are consistent with Miller's five approaches to coping with uncertainty. These approaches are: flexibility (C1), imitation (C2), reactive collaboration/cooperation (C3), control (C4) and avoidance (C5). Of these, flexibility[6] (C1), collaboration/cooperation[7] (C3) and avoidance[8] (C5) are also among the approaches noted by Simangunsong et al. (2012).

Flexibility (C1) is exhibited as diversification and operational adaptation. Diversification helps the MNC cope with industry uncertainties through its involvement in different markets or diversification of its products (e.g., Chiao et al., 2010; Liu, Shah, & Babakus, 2012). Operational adaptation is sought through adaptation of organizational structure or strategy. As an example, under high internal uncertainty some MNCs shift from FDI to non-equity modes (Lee & Makhija, 2009a).

To cope with uncertainty some MNCs choose imitation (C2). By mimicking a rival's strategy, MNCs assume that the rival's actions incorporate learning that will help to avoid the errors of early movers (Gaba, Pan, & Ungson, 2002). However, an industry leader would be able to predict the response of competitors due to their responses being mere imitations of its own strategic actions (Miller, 1992). In the context of international decision-making, political, government, cultural, demand, and competition uncertainties can be managed through the imitation of competitors' actions (e.g., Gaba et al., 2002).

The reviewed literature revealed that reactive collaboration/cooperation (C3) is the most common approach taken to cope with environmental and industry uncertainties (e.g., Brouthers, 1995; Brouthers & Brouthers, 2003; Dickson & Weaver, 1997; López-Duarte & Vidal-Suárez, 2010; Morschett, Schramm-Klein, & Swoboda, 2010; Tseng & Lee, 2010). As environmental and industry uncertainties increase, MNCs tend to select strategies that shift the uncertainty and risk to their

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

partners (Brouthers, 1995). However, collaboration/cooperation becomes less valuable in the presence of high growth potential (J. Li & Li, 2010).

MNCs may choose unilaterally to control (C4) uncertainty rather than to passively accept its conditions. Control entry modes are frequently observed among knowledge-intensive MNCs (Sanchez-Peinado & Pla-Barber, 2006). Vertical integration with suppliers is used as an attempt to control input and demand uncertainties (e.g., Akhter & Robles, 2006). Horizontal integration (e.g., mergers and acquisitions) is used to control uncertainties related to competition, particularly during the transformation stage of an economy where an MNC operates (Burgers & Padgett, 2009; Mayrhofer, 2004).

Uncertainty avoidance (C5) takes place when the level of both environmental and industry uncertainties faced by the MNC is unacceptable. MNCs postpone their action as a means of complete uncertainty avoidance until the value of an investment opportunity can be accurately predicted (e.g., Dowell & Killaly, 2009; Whitelock & Jobber, 2004).

3.5. Determinants of the choice of uncertainty management approach

The reviewed literature revealed that the following two factors influence the MNC's choice of a particular uncertainty management approach: the theoretical background of the research and the specific decision-makers within the MNC. Regarding the theoretical background of the research, studies that apply, for example, a real option theory perspective report the use of the reactive collaboration/cooperation (C3) approach to uncertainty management (e.g., Brouthers et al., 2008; Cuypers & Martin, 2010; Li & Li, 2010). This theory encourages MNCs to consider environmental uncertainty since it is not only a challenge for decision-making, but offers an opportunity in the long-term (e.g., Li & Li, 2010). Studies applying a transaction cost perspective, in contrast, report the use of control (C4) (e.g., Akhter & Robles, 2006; Tseng & Lee, 2010), while studies applying an internationalization perspective report the incremental use of both information gathering (R1) (e.g., Petersen et al., 2008; Rhee & Cheng, 2002;) and reactive collaboration/cooperation (C3) approaches to uncertainty management (e.g., Sanchez-Peinado & Pla-Barber, 2006).

Second, among the 114 reviewed articles, 22 place a strong emphasis on individual decision-makers as the determiners of the uncertainty management approaches used by an MNC, particularly in situations where MNC behavior deviates from that predicted by theoretical models (e.g., in the studies by Gray, 1994,; Richards & Yang, 2007). Therefore, this paper scrutinizes individual decision-makers and their characteristics to understand their impact on their MNC's choice of uncertainty management approach.

The systematic review regarding individual-level characteristics of decision-makers was approached inductively (i.e., no underlying classification was used). Hence, the following characteristics emerged from the review: previous decision-making experience (I1), tolerance of ambiguity (I2), individualistic/collectivistic orientation (I3), hierarchical position in the organization (I4), decision-making orientation (I5) (See Table 5).

Previous decision-making experience (I1), or lack of it, can have a significant impact on uncertainty perception and the desire for control (e.g., Makhija & Stewart, 2002; Whitelock & Jobber, 2004). More specifically, the less managerial experience a manager had, the higher the level of perceived uncertainty and the greater the chance that a third party would be involved in the control of foreign operations (Brouthers, 1995).

The reviewed literature identifies two of Hofstede's (1980) cultural dimensions that have been applied at the individual level to illustrate how the characteristics of individual decision-makers shape their perceptions of uncertainty: uncertainty avoidance—more frequently referred to in the literature on international decision-making as *tolerance for ambiguity* (I2)—and

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

Table 5. Characteristics of individual decision-makers and their influence on approaches to uncertainty management in the IB literature

	Characteristics of individual decision-makers	Terminology used	Effect on decision-making	Example literature
I1	Previous decision-making experience	Previous experience	Lack of previous decision-making experience leads to a higher level of perceived uncertainty and therefore more collaborative uncertainty management approaches	Brouthers, 1995; Makhija & Stewart, 2002; Reid, 1981; Whitelock & Jobber, 2004
		Operating experience		Eroglu, 1992
I2	Tolerance for ambiguity	Cognitive complexity	Decision-makers with higher tolerance for ambiguity have more accurate perceptions of the environment. Thus, they reduce uncertainty by gathering extra information and performing environmental scanning activities	Yasai-Ardekani, 1986
		Education, knowledge of foreign languages, extent of foreign travel		Reid, 1981
		Tolerance for ambiguity		Eroglu, 1992; Grunert et al., 2010; Makhija & Stewart, 2002
I3	Individualistic/collectivistic orientation	Cultural orientation: individualistic vs collectivistic tendencies	Managers with individualistic orientation are more restrained towards alliances in the foreign markets. Managers with more collectivistic orientation value cooperative uncertainty management	Dickson & Weaver, 1997; Makhija & Stewart, 2002
		Tolerance for risk		Eroglu, 1992
I4	Hierarchical position in the organization	Organizational positions	Managers in higher hierarchical positions have a better access to environmental scanning and information processing than managers in lower hierarchical positions. Therefore, information gathering and reduction of uncertainty becomes easier for the managers in higher positions.	Yasai-Ardekani, 1986
I5	Decision-making orientation	Decision-making orientation	Managers with more entrepreneurial orientation are higher risk takers than managers with conservative environmental orientation	Makhija & Stewart, 2002; Petersen et al., 2008; Reid, 1981
		Entrepreneurial vs conservative orientation		Dickson & Weaver, 1997
		International orientation: perceived risk vs perceived benefit		Eroglu, 1992

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

individualistic/collectivistic orientation (I3). Tolerance for ambiguity (I2) refers to the tendency of certain decision-makers to perceive ambiguous situations as desirable (Eroglu, 1992). A clear distinction is that individuals with a low tolerance for ambiguity tend to cease their information processing activities early and are resistant to new information. Individuals that are more tolerant of ambiguity are more receptive to external information (Makhija & Stewart, 2002; Yasai-Ardekani, 1986). In IB studies, decision-makers with a low tolerance for ambiguity commit resources to foreign markets only if environmental and industry uncertainties are reduced to a level beneath the maximum tolerable risk. However, it remains unclear how ambiguity-averse decision-makers behave if the perceived environmental and industry uncertainties increase with time (Petersen et al., 2008). According to the maximum tolerable risk logic, the solution is to withdraw from the foreign market (Johanson & Vahlne, 1977). However, there is a need for more empirical research to understand the actual behavior of individual decision-makers with different levels of tolerance for ambiguity.

The *individualistic/collectivistic orientation* (I3) of managers is shown to influence their perceptions of the uncertainties facing the MNC. Managers with an individualistic orientation value independence and self-sufficiency, and place high value on self-direction, social justice, and equality (Dickson & Weaver, 1997). In practice, these managers are less influenced by perceived environmental uncertainty and more restrained toward alliances in foreign markets (Dickson & Weaver, 1997). Managers with collectivist orientations emphasize the importance of belonging to a group, of value cooperation within a group, and expect help from the group. These managers are more positive toward alliances and are more influenced by perceived environmental uncertainty (Dickson & Weaver, 1997; Makhija & Stewart, 2002).

Hierarchical position in the organization (I4), which includes organizational roles, experiences, beliefs and ideologies, is shown to affect uncertainty perceptions (Yasai-Ardekani, 1986). The general argument is that organizational structure affects environmental scanning and information processing, including information access, interpretation, and transmission. Managers in higher hierarchical positions have better access to environmental scanning and information processing than managers in lower hierarchical positions. Therefore, information gathering, and the reduction of uncertainty becomes easier for managers in higher positions. Furthermore, an individual's hierarchical position influences the perception of the external environment (Sonnenfeld, 1981as in Yasai-Ardekani, 1986).

The frame of mind in which decision-makers process information is referred to as *decision-making orientation* (I5) (Makhija & Stewart, 2002). There is a significant difference in how decision-makers with an entrepreneurial and innovative decision-making orientation and decision-makers with a more conservative decision-making orientation react to environmental uncertainties (Dickson & Weaver, 1997). Decision-makers with a more entrepreneurial orientation are characterized by greater risk taking and are less likely to perceive the situation as threatening (Hodgkinson, Hughes, & Arshad, 2016). The international entrepreneurship literature assumes that decision-makers are risk takers who focus on foreign market opportunities rather than risks. Accordingly, proactive and risk-seeking decision-makers translate risk into unknown, but promising, future business opportunities (Johanson & Vahlne, 1977; Petersen et al., 2008).

4. Toward a future research agenda

Based on this systematic literature review, it is possible to make three observations about the main limitations of existing research in the IB field. These limitations are: (i) inconsistency in the conceptualization and measurement of uncertainty, (ii) lack of diversity regarding uncertainty dimensions within single studies, and (iii) the downplayed role of individual decision-makers. After briefly explaining each of these limitations in turn, and why they are problematic for knowledge development, the paper offers some specific suggestions for how future research could address them. These suggestions for future research are represented as dotted lines in Figure 1.

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

4.1. Toward more consistent choices in the conceptualization and measurement of uncertainty

The first limitation observed is the inconsistency in the conceptualization and measurement of uncertainty, which has been the subject of much debate among scholars. The kind of conceptual inconsistencies where articles use the same concept to capture different dimensions of uncertainty across categories (see Table 2) could partly explain these debates. Studies compare the relative impact of different dimensions of uncertainty on MNC decision-making and draw different conclusions. A number of studies identify environmental factors as having the most significant impact on MNCs' choice of entry mode (e.g., Agarwal & Ramaswami, 1992; Brouthers & Brouthers, 2003; Brouthers et al., 2008; Eroglu, 1992; Erramilli & D'Souza, 1995; Ji & Dimitratos, 2013), while others suggest industry factors have the greatest impact on constraining those decisions (Cadogan et al., 2003; Elango & Sambharya, 2004; Li & Li, 2010; Sutcliffe & Zaheer, 1998). Furthermore, similar inconsistencies are observed within categories of uncertainty when different concepts are used to capture the same dimension of uncertainty. In terms of environmental uncertainties, contradictions around political and cultural uncertainties are the most common. Political uncertainty is recognized to have a significant impact on MNCs' internationalization (e.g., Henisz & Delios, 2001; Jiménez, 2010), market selection (e.g., Duanmu, 2012; Henisz & Delios, 2001) and/or divestment decisions (e.g., Berry, 2013). While political uncertainty is the most researched uncertainty in the IB literature, Slangen and van Tulder's (2009) research shows that studies that have conceptualized environmental uncertainty in terms of political uncertainty, have focused on a relatively unimportant aspect of a country's formal institutional environment, and go on to conclude that governmental uncertainty may be a better proxy for environmental uncertainty. Similar debates have been observed around cultural uncertainty: Cho and Padmanabhan (2005) illustrate the importance of cultural uncertainty in determining the ownership type involved in MNCs' entry mode decisions, while other studies (e.g., Luo, 2001; Slangen & van Tulder, 2009) indicate cultural uncertainty is a less relevant driver of MNC decision-making or even irrelevant to it.

Inconsistencies in the way uncertainty is measured can also partly be seen as contributing to these conflicting findings. For example, the finding by Slangen and van Tulder (2009) on government uncertainty being a better proxy for external environment uncertainty than political uncertainty can be explained through the integration of different measures for similar dimensions of uncertainty. The study uses Kaufmann et al.'s (2004) measures for political uncertainty as a sudden regime change. Decision-makers may pay relatively little attention to this likelihood while making, for example, entry mode decisions. Furthermore, in spite of the fact that most of the reviewed studies looked at MNC assessments of political uncertainty, they still measure political instability rather than the potential impact of politics on the firm (cf. Delios & Henisz, 2003a, 2003b; Henisz & Delios, 2001; Kobrin, 1979). Another example, the study by Gaur, Delios, and Singh (2007) revealed that MNCs rely more on expatriates in situations marked by high levels of governmental and political uncertainty. The study by Xu, Pan, and Beamish (2004) found the opposite: greater government and political uncertainty is associated with a lower level of equity ownership and a lower expatriate presence. However, a deeper analysis of these studies revealed that Gaur et al. (2007) measure governmental and political uncertainties through governmental and political indices of the host country, while Xu et al. (2004) focus more on demand forecasts of the host country and a firm's operational effectiveness. In terms of the measures of cultural uncertainty, linguistic and religious distances have a greater impact on MNCs' behavior than more traditional measurements of cultural uncertainty (Dow et al., 2016). Cultural distance has been criticized as being a less relevant driver of managerial decision-making than perceptions regarding the host market's environment (Xu & Shenkar, 2002).

In sum, inconsistencies in the conceptualization and measurement of uncertainty are problematic because they fragment our knowledge of the field and, most significantly, impede the development of our accumulative knowledge about uncertainty and its effects. Those inconsistencies have inhibited our understanding about *what* uncertainties MNCs actually prioritize when making international decisions, and has impeded our understanding of *how* an MNC prioritizes

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

the uncertainties it recognizes and how that affects its decisions. The same inconsistencies prevent us accurately evaluating the contextual environment within which MNCs operate and within which decisions are made (Di Gregorio, 2005). Furthermore, the diverse ways in which different uncertainties are conceptualized and measured presents a threat to the validity of empirical studies, and ultimately to theory development (Delios & Henisz, 2003a).

In light of these limitations, two main recommendations for future research are offered. First, future research should choose dimensions of uncertainty that are more conceptually and statistically parsimonious in order to prevent further confusion. Miller (1993) and Werner, Brouthers, and Brouthers (1996), for instance, recommend choosing uncertainty concepts that are inter-related and consistent with previous studies on uncertainty. They offer dimensions of uncertainty that are theoretically justified and exhibit construct and discriminant validity. Therefore, this paper recommends integrating similar types of uncertainty constructs into future research to achieve more comprehensive measures. To address these methodological issues, future research questions might include: "What is the nature of the relationship between different dimensions of uncertainty at the conceptual level, and which constructs should be included in future efforts at scale development? To what extent is the grouping of different constructs of uncertainty generalizable across industries and countries, or do they interact in different ways?"

Second, since most of today's uncertainty measures are objective and taken from country reports (84 quantitative studies out of the total 114 articles reviewed use statistical indices of the countries to measure MNC's uncertainties), our understanding of MNC decision-making tends not to be based on the subjective reality of the uncertainties faced by the actual decision-makers. This is problematic, since this fails to acknowledge that people and teams make decisions, not the organization, and thus ignores a potentially wide and powerful range of explanations behind MNC decision-making that could complement existing theories and models. As studies have shown, some individual decision-makers might perceive specific uncertainties differently than the rest of the MNC management, or not acknowledge them at all (Kiss, Williams, & Houghton, 2013). Therefore, more studies that integrate subjective measures of uncertainty are needed in order to understand how decision-makers within MNCs actually differentiate between, and respond to, different dimensions of uncertainty. Subjective measurements of uncertainty are more likely to provide findings that are representative of what individual decision-makers actually experience (e.g., as in Petersen et al., 2008 or Whitelock & Jobber, 2004).

In a recent study, Haley found over 80 percent of MNC managers used qualitative personal judgments to assess uncertainty, while fewer than 20 per cent used statistical techniques (2003). Therefore, the integration of more subjective measures of uncertainty could provide a more realistic account of how MNCs perceive and prioritize different uncertainties. Future research questions could thus address the following kinds of questions: How much heterogeneity exists in the subjective perception of different kinds of uncertainty between MNC decision-makers? To what extent does this heterogeneity provide grounds for aggregation at the MNC level? How does heterogeneity and homogeneity in uncertainty perceptions influence decision-making? By integrating dimensions of uncertainty that are more conceptually and statistically parsimonious, and through the use of more subjective measures, it is possible to improve the predictive power of different theoretical models of MNC behavior under conditions of uncertainty.

4.2. Addressing the lack of diversity in uncertainty dimensions included within single studies

The second limitation in existing IB research is that studies tend to focus on uncertainties solely within one category (i.e., environmental or industry category) and largely overlook firm-level dimensions of uncertainty. As the reviewed literature revealed, environmental and industry uncertainties can be managed through different approaches. These interlinkages are shown as two solid arrows from environmental and industry uncertainties to uncertainty management methods in Figure 1. A dotted arrow that connects firm uncertainties and uncertainty management approaches denotes that more research is needed. Although there has been a move toward

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

integrating uncertainties from different categories (e.g., Beckman et al., 2004; Brouthers et al., 2008; Galang, 2012; Henisz & Delios, 2001; Liu & Maula, 2016), the vast majority of studies examine uncertainties in parallel rather than together within the same study (see Table 3). This is a major shortcoming since a focus on only one uncertainty, such as political uncertainty, can lead to ill-informed entry mode decisions if other uncertainties are ignored (e.g., Brouthers, 1995). Empirical studies have found significant relationships between one or more uncertainty dimensions and MNC entry mode choice (Ahmed, Mohamad, Tan, & Johnson, 2002). However, the interlinkages between different categories of uncertainty and their effects on uncertainty management and decision-making remain largely unexplored in IB research.

In particular, uncertainties at the firm level are under-explored in IB studies compared to environmental and industry dimensions of uncertainty (See Figure 2). This is problematic since, according to the strategy tripod model (Peng, Wang, & Jiang, 2008), strategic decisions by MNCs are influenced by environmental, industry, and firm-specific factors, and thus uncertainties in all three categories should be considered equally. Within the IB field, location and entry mode decisions are the strategic decision-making activities that have received by far the most research attention. However, this systematic literature review reveals that the studies that examine these decisions primarily investigate the impact of either environmental or industry uncertainties and largely downplay the role of firm uncertainties (See Table 3). A similar pattern is evident when examining research on the operational decisions of MNCs; firm dimensions of uncertainty are usually overlooked.

Not including a wider spectrum of uncertainties within single studies prevents us from understanding the relationships between them and only presents with partial explanations for MNC decision-making. Including several dimensions not only helps to address this, but also provides a picture that is closer to the empirical reality that decision-makers within MNCs have to confront. One such example is that IB research appears to be more concerned with environmental or industry uncertainties, while MNCs are reported to be more focused on resolving firm uncertainties in the course of international decision-making. As Buckley, Devinney, and Louviere (2007) observed, MNCs planning international activities tend to follow theoretically predictive paths. However, the actual implementation of these activities is less aligned with traditional models. As the authors explain, decision-makers pay more attention to firm-related uncertainties (e.g., ROI, production cost, exploitation and protection of assets) when they implement decisions, and less to environmental uncertainty (e.g., political instability), which tends to be a factor considered more during the planning stage. By considering firm dimensions of uncertainty along with environmental and industry uncertainties, international decision-making models will not only acquire an enhanced ability to explain the kind of MNC behavioral variation that is observed, but will also open opportunities to examine the interactions between the different types of uncertainty alluded to above.

In terms of future research, due to the complex business environments in which MNCs operate, the trade-off among different dimensions of uncertainty and understanding their contextual effect on decision-making remains crucial within the field of IB. However, it is important to understand not only how one category of uncertainty is managed, but how the simultaneous impact of multiple uncertainties from different categories influences how MNC operations are and should be managed. Accordingly, future research should address the following kinds of research questions: “On what dimensions of uncertainty do decision-makers tend to concentrate during international decision-making? Why is this and what effect does this have on decisions? What uncertainty management methods do MNCs choose when they face various uncertainties across different categories, and do these methods vary based on the type of uncertainties they face?” Some scholars offer more specific questions, such as: “Does the multilevel interaction of factors at nation-, industry-, firm-, and project-levels influence entry choice? Does the proper alignment of entry mode choice with external and internal antecedents actually lead to superior performance?” (Luo, 2001, p. 467) and “How do firm- and country- level variables in addition to industry-level

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

variables influence the three types of MNC entry mode (i.e., greenfield, acquisition, joint venture)?" (Elango & Sambharya, 2004, p. 121).

This paper also encourages more research on firm uncertainties. External uncertainties at the environmental and industry level have been incorporated more frequently than internal, firm-related uncertainties. A potential explanation is that firm uncertainties are considered more controllable than industry or environmental uncertainties (Beckman et al., 2004). However, empirical research on the management of firm uncertainties (e.g., R&D uncertainty, operating uncertainty) remains very limited. Furthermore, the reviewed studies revealed conflicting findings about the impact of previous experience on international decision-making. Future research on these dimensions of uncertainty would serve to enhance our understanding about the impact of firm-level uncertainties on MNCs' international activities. Research questions might include: What kinds of firm uncertainties are the most important in decision-making, and when and how are these uncertainties considered by MNCs? How do MNCs approach the management of firm uncertainties during their international decision-making?

4.3. Addressing the role of individual decision-makers

Finally, the role and impact of individual managers' perceptions of uncertainty, and their choice of uncertainty management approaches, remain largely overlooked. Consideration of individual managers as decision-makers has far-reaching implications for researching MNCs and understanding the way in which multinationals operate (Piekkari & Welch, 2010; Roth & Kostova, 2003). Much of the IB literature assumes managers are rational decision-makers who make decisions based on accurate perceptions of situational conditions that are considered systematically in an analytic rather than an intuitive way (Atuahene-Gima & Li, 2004; Ji & Dimitratos, 2013). In terms of the role of individual managers in such rational decision-making processes, managers tend to rely on an objective analysis of the situation and decision criteria, rather than their subjective preferences or orientations when reaching a decision on the final mode choice (Dean & Sharfman, 1993; Ji & Dimitratos, 2013). Despite emerging evidence about the significance of individual decision-makers, most existing studies research managerial perceptions of uncertainty without considering differences between individuals (e.g., Luo, 2001; White, Boddewyn, & Galang, 2015). This is problematic since the complete picture of international decision-making cannot be understood without a proper understanding of the motivations and attributes of managers at the individual level of analysis. Combining existing knowledge on uncertainty in IB with multilevel research and a greater emphasis on the individual illuminates many avenues to enhance our understanding about how decision-makers perceive the environment, make decisions based on their interpretations, and influence MNC performance (e.g., Maitland & Sammartino, 2015; Minbaeva, 2016).

Furthermore, one central limitation within existing research that cannot be resolved without understanding individual decision-makers is the conflicting findings and lack of consensus on MNC choices of uncertainty management approaches. Empirical studies illustrate that MNCs are more likely to choose a different cooperative/collaborative approach (e.g., a joint venture) than a controlling approach (e.g., a wholly owned subsidiary) when entering culturally distant countries (Brouthers & Brouthers, 2001). Other studies, however, find that greater cultural uncertainty increases an MNC's propensity to choose WOS (Tsang, 2005). Other studies present similar conflicting conclusions (e.g., Brouthers et al., 2008; Delios & Henisz, 2003a; Prater et al., 2001; Song, Lee, & Makhija, 2015; Li & Li, 2010; Sartor & Beamish, 2014).

This paper suggests that one way to explain and address these inconsistencies is to scrutinize the role of individual decision-makers in the MNC's choice of uncertainty management approaches. Recent studies observe that managers do not always define or react to uncertainty in ways that theoretical decision models would predict (e.g., Buckley et al., 2007; Forlani, Parthasarathy, & Keaveney, 2008). For instance, managers do not always think in terms of the probability of loss, but rather in terms of the magnitude of loss, and that is why their ways of managing uncertainty are more risky than firm-focused theories initially predict (Buckley et al., 2007). Furthermore, the

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

study by Richards and Yang (2007) did not find support for transaction cost logic holding that when environmental uncertainty is low, MNCs prefer to have entry modes involving higher resource commitments. In the same study, this is explained as MNCs making different equity ownership decisions in similar uncertain circumstances due to managers having different risk preferences that influence different transaction governance structures. Furthermore, managers from different national cultures are found to act differently, even in similar uncertain circumstances, due to their heterogeneous, subjective risk perceptions and risk preferences. The study by Haley (2003) found that managerial perceptions of environmental-, industry- and firm-related uncertainties have an effect on MNC decision-making. Acquiring a good understanding of the kinds of characteristics that influence managers' perceptions of uncertainty and what influences their approaches to managing it, would offer insights into the micro-foundations underlying MNC decision-making. MNCs' decisions are mediated by individual decision-makers, and the explanation of MNC decisions is therefore inherently a shorthand for a more complicated, micro-foundation-driven explanation (Coleman, 1990).

Future research in this domain could thus benefit from addressing the connections between the characteristics of the individual decision-maker and subjective perceptions about different dimensions of uncertainty (see dotted line in Figure 1). This could include the following questions: How do individual decision-makers manage perceived uncertainties? What influences the individual decision-maker's choice of uncertainty management approach? Are there any other characteristics of individual decision-makers not identified in this review that might be equally or more influential? Liesch et al. (2011, p. 868) offer even more specific research questions on this topic such as: "How does learning affect the individual manager's ability to make astute risk assessments and to accommodate risk? To what extent does this provide a robust explanation of successful international expansion trajectories and idiosyncratic internationalization behaviors?"

It is commonplace for most key MNC decisions (e.g., those on entry mode or internationalization expansions) to be made by organizational teams at MNC headquarters. Headquarters' decisions are indicators of the MNC's optimal interest. In most studies, both headquarters at the collective level and managers at the individual level are portrayed as rational decision-makers whose interests are aligned (Aharoni et al., 2011). Such perceptions over-simplify MNCs' decision-making processes and shift focus from the decision-making process to the outcome. Ignoring the process in this way may lead to misleading findings, since decision-makers daily face uncertainty arising from factors in the environment, industry, and firm (Buckley et al., 2007). Within an MNC, individual perceptions of foreign markets are likely to differ and there is no simple path from an individual's perception to the MNC's perception (Coleman, 1990; Felin & Hesterly, 2007; Foss, Husted, & Michailova, 2010; Gupta, Tesluk, & Taylor, 2007). Drawing on this multilevel perspective, it is important to understand the interconnections between the characteristics of individual decision-makers, their impact on a decision-making team's preference for uncertainty and how that manifests itself at the MNC level. An example question for future research in this regard could be: How do individual decision-makers' uncertainty management preferences influence MNC uncertainty management behavior at the team and firm levels? Piaskowska and Trojanowski (2014, p. 55) offer more specific future research questions: "How do executives' attributes, beyond their demographic characteristics such as age, tenure, education, experience or nationality, influence their top management team and international strategic decisions? What is the role of emotions, personalities, and values in these decisions?" In Figure 1, this research requirement is illustrated as a dotted arrow from the characteristics of the individual decision-maker to the decision-making team's uncertainty management approaches to MNC uncertainty management methods.

5. Conclusion

Uncertainty is currently the only constant faced by MNCs. Because it has a significant impact on the choices that MNCs make during their international decision-making, uncertainty is an important phenomenon to study. This study has described various dimensions of environmental, industry and firm uncertainty faced by MNCs and the approaches to uncertainty reduction and coping

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

they use to manage such uncertainty. Through the evidence of its systematic literature review, this paper has brought awareness that uncertainty is conceptualized and measured inconsistently in the IB literature and this is problematic because it leads to fragmented and conflicting findings about MNCs' behavior and decision-making. Accordingly, this paper has offered an integrative framework that organizes and synthesizes dimensions of uncertainty into modified and detailed categorizations that are relevant for the IB audience. This framework encourages a more consistent use of uncertainty dimensions and integration of a wider spectrum of different kinds of uncertainties within single studies.

Furthermore, this paper has also revealed that in situations where MNC behavior deviates from that predicted by theoretical models, the role of those individual decision-makers who determine the uncertainty management approaches used by an MNC becomes influential. Reflecting on systematic review findings, this paper has identified five integrating characteristics of the key individual decision-makers: previous decision-making experience, tolerance for ambiguity, individualistic/collectivistic orientation, position in the organizational hierarchy, decision-making orientation. Understanding the impact of individual decision-makers and their characteristics on MNCs' choice of uncertainty management approach is important because it would add significantly to the predictive validity of theoretical models.

Lastly, the paper has offered an agenda for future research discussing three critical suggestions. In the first place, to achieve more conceptually and statistically parsimonious dimensions of uncertainty, future research should conduct more studies on the generalizability of different constructs of uncertainty across industries and countries and integrate subjective measures of uncertainty. In the second suggestion, future research should integrate a wider spectrum of uncertainties within single studies. By including several dimensions of uncertainty within a single study and considering firm dimensions of uncertainty along with environmental and industry uncertainties, international decision-making models will be supplemented with a greater variation of MNC behavior under the contextual effect of multiple uncertainties on MNC operations. The third suggestion puts forward the notion of individual managers' perceptions of uncertainty and their choice of uncertainty management approaches. Understanding the characteristics that influence managers' perceptions of uncertainty and the methods available to manage it would in turn advance our understanding of the micro-foundations underlying MNC decision-making.

Collectively, it is hoped that this systematic review of the literature and these suggestions for future research serve to enrich this significant stream of IB research.

Funding
This work was supported by the Ella ja Georg Ehrnroothin Säätiö [PhD working grant].

Author details
Sniazhana Sniazhko
E-mail: sniazhana.sniazhko@uva.fi
School of Management and Public Administration, University of Vaasa, PL 700, Vaasa 65101, Finland.

Citation information
Cite this article as: Uncertainty in decision-making: A review of the international business literature, Sniazhana Sniazhko, *Cogent Business & Management* (2019), 6: 1650692.

Notes

1. Summary of the selected and reviewed articles is available from the author upon request.
2. The year when the difference between uncertainty and risk was defined for the first time by Knight (1921).
3. The selected synonyms for "uncertainty" were "complexity", "ambiguity", "risk", "dynamism", "high-velocity", "instability", and "equivocality". These synonyms of uncertainty were identified based on both the theoretical conceptualization of uncertainty in the work of Lipshitz and Strauss (1997), which is one of the most inclusive among existing conceptualizations of uncertainty, and consultation with an information specialist in the field of business studies.
4. Other alternative classifications of uncertainty are described in Root (1987), Das and Teng (1999, 2001)), and Burgers and Padgett (2009). Miller's (1992) classification of uncertainty, however, remains the most applicable to the context of this paper since it is the most comprehensive in the IB field.
5. Miller's (1992) uncertainty management framework consists of two uncertainty management methods and seven relevant approaches. Simangunsong et al.'s (2012) uncertainty management framework consists of two uncertainty management methods and 21 relevant approaches.
6. Simangunsong et al. (2012) offer three types of flexibility as separate approaches. To keep the list of approaches simple, this paper uses one term of

flexibility for its different forms. Similar simplification is observed in Miller's (1992) article.

7. Miller (1992) uses the term cooperation, while Simangunsong et al. (2012) uses collaboration. Since the reviewed IB literature uses these two terms interchangeably, this paper terms this approach as collaboration/cooperation (C3).
8. Instead of avoidance Simangunsong et al. (2012) refer to postponement, although the concept of the term is the same in both frameworks: i.e., postpone or avoid the decision until the last possible moment in order for the situation to become more known. The reviewed IB literature uses the term avoidance more frequently than postponement. Thus, this paper integrates the term avoidance.

References

ABS [The Association of Business Schools] (2015). Academic journal guide. Retrieved from: https://gsom.spbu.ru/files/abs-list-2015.pdf.

Achrol, R. S., & Stern, L. W. (1988). Environmental determinants of decision-making uncertainty in marketing channels. *Journal of Marketing Research*, *25*(1), 36–50. doi:10.1177/002224378802500104

Agarwal, S., & Ramaswami, S. N. (1992). Choice of foreign market entry mode: Impact of ownership, location and internationalization factors. *Journal of International Business Studies*, *23*(1), 1–27. doi:10.1057/palgrave.jibs.8490257

Aharoni, Y. (1966). *The foreign investment decision process*. Boston, MA: Harvard Business School.

Aharoni, Y., Tihanyi, L., & Connelly, B. L. (2011). Managerial decision-making in international business: A forty-five-year retrospective. *Journals of World Business*, *46*, 135–142. doi:10.1016/j.jwb.2010.05.001

Ahmed, Z. U., Mohamad, O., Tan, B., & Johnson, J. P. (2002). International risk perceptions and mode of entry: A case study of Malaysian multinational firms. *Journal of Business Research*, *55*, 805–813. doi:10.1016/S0148-2963(00)00220-4

Ahsan, M., & Musteen, M. (2011). Multinational enterprises' entry mode strategies and uncertainty: A review and extension. *International Journal of Management Reviews*, *13*, 376–392. doi:10.1111/ijmr.2011.13.issue-4

Akhter, S. H., & Choudhry, Y. A. (1993). Forced withdrawal from a country market: Managing political risk. *Business Horizons*, *36*, 47–54. doi:10.1016/S0007-6813(05)80148-X

Akhter, S. H., & Robles, F. (2006). Leveraging internal competency and managing environmental uncertainty. *International Marketing Review*, *23*(1), 98–115. doi:10.1108/02651330610646313

Alderson, P., Green, S., & Higgins, J. (2004). *Cochrane reviewer's handbook*. Chichester, UK: Wiley.

Arregle, J.-L., Miller, T. L., Hitt, M. A., & Beamish, P. W. (2016). How does regional institutional complexity affect MNE internationalization? *Journal of International Business Studies*, *47*(6), 697–722. doi:10.1057/jibs.2016.20

Atuahene-Gima, K., & Li, H. (2004). Strategic decision comprehensiveness and new product development outcomes in new technology ventures. *Academy of Management Journal*, *47*(4), 583–597.

Baum, J. R., & Wally, S. (2003). Strategic decision speed and firm performance. *Strategic Management Journal*, *24*, 1107–1129. doi:10.1002/(ISSN)1097-0266

Beckman, C. M., Haunschild, P. R., & Phillips, D. J. (2004). Friends or strangers? Firm-specific uncertainty, market uncertainty, and network partner selection. *Organization Science*, *15*(3), 259–275. doi:10.1287/orsc.1040.0065

Berry, H. (2013). When do firms divest foreign operations? *Organization Science*, *24*(1), 246–261. doi:10.1287/orsc.1110.0724

Briner, R. B., & Walshe, N. D. (2015). From passively received wisdom to actively constructed knowledge: Teaching systematic review skills as a foundation of evidence-based management. *Academy of Management Learning and Education*, *1*, 63–80.

Brouthers, K. D. (1995). The influence of international risk on entry mode strategy in the computer software industry. *Management International Review*, *35*(1), 7–28.

Brouthers, K. D., & Brouthers, L. E. (2001). Explaining the national cultural distance paradox. *Journal of International Business Studies*, *32*(1), 177–189. doi:10.1057/palgrave.jibs.8490944

Brouthers, K. D., & Brouthers, L. E. (2003). Why service and manufacturing entry mode choices differ: The influence of transaction cost factors, risk and trust. *Journal of Management Studies*, *40*(5), 1179–1204. doi:10.1111/1467-6486.00376

Brouthers, K. D., Brouthers, L. E., & Werner, S. (2002). Industrial sector, perceived environmental uncertainty and entry mode strategy. *Journal of Business Research*, *55*(6), 495–507. doi:10.1016/S0148-2963(00)00154-5

Brouthers, K. D., Brouthers, L. E., & Werner, S. (2008). Real options, international entry mode choice and performance. *Journal of Management Studies*, *45*(5), 936–960. doi:10.1111/joms.2008.45.issue-5

Brouthers, K. D., & Dikova, D. (2010). Acquisitions and real options: The greenfield alternative. *Journal of Management Studies*, *47*(6), 1048–1071. doi:10.1111/j.1467-6486.2009.00875.x

Brouthers, L. E., Brouthers, K. D., & Werner, S. (2000). Perceived environmental uncertainty, entry mode choice and satisfaction with EC-MNC performance. *British Journal of Management*, *11*, 183–195. doi:10.1111/bjom.2000.11.issue-3

Buckley, P. J., Devinney, T. M., & Louviere, J. J. (2007). Do managers behave the way theory suggests? A choice-theoretic examination of foreign direct investment location decision-making. *Journal of International Business Studies*, *38*(7), 1069–1094. doi:10.1057/palgrave.jibs.8400311

Burgers, W., & Padgett, D. (2009). Understanding environmental risk for IJVs in China. *Management International Review*, *49*(3), 337–357. doi:10.1007/s11575-009-0146-9

Cadogan, J. W., Cui, C. C., & Li, E. K. Y. (2003). Export market-oriented behavior and export performance. *International Marketing Review*, *20*, 493–513. doi:10.1108/02651330310498753

Cadogan, J. W., Paul, N., Salminen, R. T., Puumalainen, K., & Sundqvist, S. (2001). Key antecedents to export market-oriented behaviors: A cross-national empirical examination. *International Journal of Research in Marketing*, *18*(3), 261–282. doi:10.1016/S0167-8116(01)00038-6

Campa, J. (1994). Multinational investment under uncertainty in the chemical processing industries. *Journal of International Business Studies*, *25*(3), 557–578. doi:10.1057/palgrave.jibs.8490212

Celly, K. S., Spekman, R. E., & Kamauff, J. W. (1999). Technological uncertainty, buyer prefernces and supplier assurances: An examination of pasific rim purchasing arrangements. *Journal of International Business Studies*, *30*(2), 297–316. doi:10.1057/palgrave.jibs.8490071

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent business & management

Certo, T. S., Connelly, B. L., & Tihanyi, L. (2008). Managers and their not-so rational decisions. *Business Horizons*, *51*(2), 113–119. doi:10.1016/j.bushor.2007.11.002

Chattopadhyay, P., Glick, W. H., & Huber, G. P. (2001). Organizational actions in response to threats and opportunities. *Academy of Management Journal*, *44* (5), 937–955.

Chen, W., & Kamal, F. (2016). The impact of information and communication technology adoption on multinational firm boundary decisions. *Journal of International Business Studies*, *47*(5), 563–576. doi:10.1057/jibs.2016.6

Chiao, Y.-C., Lo, F.-Y., & Yu, C.-M. (2010). Choosing between wholly-owned subsidiaries and joint ventures of MNCs from an emerging market. *International Marketing Review*, *27*(3), 338–365. doi:10.1108/02651331011047998

Cho, K. R., & Padmanabhan, P. (2005). Revisiting the role of cultural distance in MNC's foreign ownership mode choice: The moderating effect of experience attributes. *Internaitonal Business Review*, *14*(3), 307–324. doi:10.1016/j.ibusrev.2005.01.001

Clark, D. R., Li, D., & Shepherd, D. A. (2017). Country familiarity in the initial stage of foreign market selection. *Journal of International Business Studies*, 1–31. doi:10.1057/s41267-017-0099-3

Coleman, J. S. (1990). *Foundations of social theory*. Cambridge, MA: The Belknap Press of Harvard University Press.

Cui, A. S., Griffith, D. A., Cavusgil, S. T., & Dabic, M. (2006). The influence of market and cultural environmental factors on technology transfer between foreign MNCs and local subsidiaries: A Croatian illustration. *Journal of World Business*, *41*(2), 100–111. doi:10.1016/j.jwb.2006.01.011

Cuypers, I., & Martin, X. (2010). What makes and what does not make a real option? A study of equity shares in international joint ventures. *Journal of International Business Studies*, *41*(1), 47–69. doi:10.1057/jibs.2009.17

Das, T., & Teng, B. (1999). Managing risks in strategic alliances. *The Academy of Management Executive*, *13* (4), 50–62.

Das, T., & Teng, B. (2001). Relational risk and its personal correlates in strategic alliances. *Journal of Business and Psychology*, *15*, 449–465. doi:10.1023/A:1007874701367

Dean, J., & Sharfman, M. (1993). Procedural rationality in the strategic decision- making process. *Journal of Management Studies*, *30*(4), 587–610. doi:10.1111/joms.1993.30.issue-4

Delios, A., & Henisz, W. J. (2003a). Policy uncertainty and the sequence of entry by Japanese firms, 1980–1998. *Journal of International Business Studies*, *34*(3), 227–241. doi:10.1057/palgrave.jibs.8400031

Delios, A., & Henisz, W. J. (2003b). Political hazards, experience, and sequential entry strategies: The international expansion of Japanese firms, 1980–1998. *Strategic Management Journal*, *24*(11), 1153–1164. doi:10.1002/(ISSN)1097-0266

Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. Buchanan & A. Bryman (Eds.), *The sage handbook of organizational research methods* (pp. 671–689). London: Sage.

Desbordes, R. (2007). The sensitivity of U.S. multinational enterprises to political and macroeconomic uncertainty: A sector analysis. *International Business Review*, *16*(6), 732–750. doi:10.1016/j.ibusrev.2007.08.006

Dess, G. G., & Beard, D. W. (1984). Dimensions of organizational task environments. *Administrative Science Quarterly*, *29*, 52–73. doi:10.2307/2393080

Di Gregorio, D. (2005). Re-thinking country risk: Insights from entrepreneurship theory. *International Business Review*, *14*(2), 209–226. doi:10.1016/j.ibusrev.2004.04.009

Dickson, P. H., & Weaver, K. M. (1997). Environmental determinants and individual-level moderators of alliance use. *Academy of Management Journal*, *40*(2), 404–425.

Dow, D., Cuypers, I. R. P., & Ertug, G. (2016). The effects of within-country linguistic and religious diversity on foreign acquisitions. *Journal of International Business Studies*, *47*(3), 319–346. doi:10.1057/jibs.2016.7

Dowell, G., & Killaly, B. (2009). Effect of resource variation and firm experience on market entry decisions: Evidence from U.S. telecommunication firms' international expansion decisions. *Organization Science*, *20*(1), 69–84. doi:10.1287/orsc.1080.0374

Duanmu, J.-L. (2012). Firm heterogeneity and location choice of Chinese Multinational Enterprises (MNEs). *Journal of World Business*, *47*(1), 64–72. doi:10.1016/j.jwb.2010.10.021

Elango, B., & Sambharya, R. B. (2004). The influence of industry structure on the entry mode choice of overseas entrants in manufacturing industries. *Journal of International Management*, *10*, 107–124. doi:10.1016/j.intman.2003.12.005

Ellwood, P., Grimshaw, P., & Pandza, K. (2016). Accelerating the innovation process: A systematic review and realist synthesis of the research literature. *International Journal of Management Reviews*, 19(4), 510–530.

Eroglu, S. (1992). The internationalization process of franchise systems: A conceptual model. *International Marketing Review*, *9*(5), 19–30. doi:10.1108/02651339210020277

Erramilli, M. K., & D'Souza, D. E. (1995). Uncertainty and foreign direct investment: The role of moderators. *International Marketing Review*, *12*(3), 47–60. doi:10.1108/02651339510145771

Erramilli, M. K., & Rao, C. P. (1993). Service firms' entry-mode choice: A modified transaction-cost analysis approach. *Journal of Marketing*, *57*(3), 19–38.

Felin, T., & Hesterly, W. S. (2007). The knowledge-based view, heterogeneity, and the individual: Philosopicahl considerations on the loces of knowledge. *Academy of Management Review*, *32*, 195–218. doi:10.5465/amr.2007.23464020

Forlani, D., Parthasarathy, M., & Keaveney, S. M. (2008). Managerial risk perceptions of internaitonal entry-mode strategies. *Internaitonal Marketing Review*, *25*(3), 292–311. doi:10.1108/02651330810877225

Foss, N. J., Husted, K., & Michailova, S. (2010). Governing knowledge sharing in organizations: Levels of analysis, governanace mechanisms, and research directions. *Journal of Management Studies*, *47*(3), 455–482. doi:10.1111/j.1467-6486.2009.00870.x

Gaba, V., Pan, Y., & Ungson, G. R. (2002). Timing of entry in international market: An empirical study of U.S. fortune 500 firms in China. *Journal of International Business Studies*, *33*(1), 39–55. doi:10.1057/palgrave.jibs.8491004

Galang, R. M. N. (2012). Government efficiency and international technology adoption: The spread of electronic ticketing among airlines. *Journal of International Business Studies*, *43*(7), 631–654. doi:10.1057/jibs.2012.20

Gatignon, H., & Anderson, E. (1988). The multinational corporation's degree of control over foreign subsidiaries: And empirical test of a transaction cost explanation. *Journal of Law, Economics, and Organization*, *4*, 305–336.

Gaur, A. S., Delios, A., & Singh, K. (2007). Institutional environments, staffing strategies and subsidiary performance. *Journal of Management*, *33*(4), 611–636. doi:10.1177/0149206307302551

Goodnow, J. D., & Hansz, J. H. (1972). Environmental determinants of overseas market entry strategies. *Journal of International Business Studies*, *3*, 33–60. doi:10.1057/palgrave.jibs.8490740

Gray, B. (1994). Active and passive international marketing strategies: The case of two state-owned broadcasters. *European Journal of Marketing*, *28*(2), 42–56. doi:10.1108/03090569410055274

Griffith, D. A., Harmancioglu, N., & Droge, C. (2009). Governanace decisions for the offshore outsourcing of new product development in technology inteinsive markets. *Journal of World Business*, *44*, 217–224. doi:10.1016/j.jwb.2008.08.007

Grunert, K. G., Trondsen, T., Campos, E. G., & Young, J. A. (2010). Market orientation in the mental models of decision makers: Two cross-border value chains. *International Marketing Review*, *27*(1), 7–27. doi:10.1108/02651331011020384

Gupta, A. K., Tesluk, P. E., & Taylor, M. S. (2007). Innovation at and across multiple levels of analysis. *Organization Science*, *18*(6), 885–897. doi:10.1287/orsc.1070.0337

Haley, U. C. V. (2003). Assessing and controlling business risks in China. *Journal of International Management*, *9*(3), 237–252. doi:10.1016/S1075-4253(03)00035-8

Henisz, W. J., & Delios, A. (2001). Uncertainty, imitation, and plant location: Japanese multinational corporations, 1990–1996. *Administrative Science Quarterly*, *46*, 443–475. doi:10.2307/3094871

Hennart, J.-F., & Slangen, A. (2015). Yes, we really do need more entry mode studies! A commentary on Shaver. *Journal of International Business Studies*, *46*(1), 114–122. doi:10.1057/jibs.2014.39

Hodgkinson, I. R., Hughes, P., & Arshad, D. (2016). Strategy development: Driving improvisation in Malaysia. *Journal of World Business*, *51*(3), 379–390. doi:10.1016/j.jwb.2015.07.002

Hofstede, G. (1980). Motivation, leadership, and organization: Do American theories apply abroad? *Organizational Dynamics*, *9*(1), 42–63. doi:10.1016/0090-2616(80)90013-3

Hong, S. J., & Lee, S.-H. (2015). Reducing cultural uncertainty through experience gained in the domestic market. *Journal of World Business*, *50*(3), 428–438. doi:10.1016/j.jwb.2014.06.002

Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, *57*, 53–70. doi:10.1177/002224299305700304

Ji, J., & Dimitratos, P. (2013). An empirical investigation into international entry mode decision-making effectiveness. *International Business Review*, *22*(6), 994–1007. doi:10.1016/j.ibusrev.2013.02.008

Jiménez, A. (2010). Does political risk affect the scope of the expansion abroad? Evidence from Spanish MNEs. *International Business Review*, *19*(6), 619–633. doi:10.1016/j.ibusrev.2010.03.004

Jiménez, A., Benito-Osorio, D., Puck, J., & Klopf, P. (2017). The multi-faceted role of experience dealing with policy risk: The impact of intensity and diversity of experiences. *International Business Review*, 1–11. doi:10.1016/j.ibusrev.2017.05.009

Jiménez, A., & Delgado-Garciá, J. B. (2012). Proactive management of political risk and corporate performance: The case of Spanish multinational enterprises. *International Business Review*, *21*(6), 1029–1040. doi:10.1016/j.ibusrev.2011.11.008

Jiménez, A., Luis-Rico, I., & Benito-Osorio, D. (2014). The influence of political risk on the scope of internationalization of regulated companies: Insights from a Spanish sample. *Journal of World Business*, *49*(3), 301–311. doi:10.1016/j.jwb.2013.06.001

Johanson, J., & Vahlne, J.-E. (1977). Process of the internationalization development firm-a model of knowledge foreign and increasing market commitments. *Journal of International Business Studies*, *8*(1), 23–32. doi:10.1057/palgrave.jibs.8490676

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2004). *Governance matters III: Governance indicators for 1996–2002* (World Bank policy research working paper). Washington, DC: World Bank.

Keats, B. W., & Hitt, M. A. (1988). A causal model of linkages among environmental dimensions, macro organizational characteristics, and performance. *Academy of Management Journal*, *31*(3), 570–598.

Keillor, B. D., Wilkinson, T. J., & Owens, D. (2005). Threats to international operations: Dealing with political risk at the firm level. *Journal of Business Research*, *58*(5), 629–635. doi:10.1016/j.jbusres.2003.08.006

Kelly, M. E., & Philippatos, G. C. (1982). Comparative analysis of the foreign investment evaluation practices by U.S.-based manufacturing multinational companies. *Journal of International Business Studies*, *13*, 19–42. doi:10.1057/palgrave.jibs.8490556

Kennedy, C. R., Jr. (1984). The external environment-strategic planning interface: U.S. multinational corporate practices in the 1980s. *Journal of International Business Studies*, *15*, 99–108. doi:10.1057/palgrave.jibs.8490484

Kiss, A. N., Williams, D. W., & Houghton, S. M. (2013). Risk bias and the link between motivation and new venture post-entry international growth. *International Business Review*, *22*(6), 1068–1078. doi:10.1016/j.ibusrev.2013.02.007

Knight, F. (1921). Risk, uncertainty and profit. Boston, NY: Houghton Mifflin Company.

Kobrin, S. J. (1979). Political risk: A review and reconsideration. *Journal of International Business Studies*, *10*, 67–80. doi:10.1057/palgrave.jibs.8490631

Kogut, B., & Singh, H. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, *19*(3), 411–432. doi:10.1057/palgrave.jibs.8490394

Kraus, S., Ambos, T. C., Eggers, F., & Cesinger, B. (2015). Distance and perceptions of risk in internationalization decisions. *Journal of Business Research*, *68*(7), 1501–1505. doi:10.1016/j.jbusres.2015.01.041

Lee, S.-H., & Makhija, M. (2009a). Flexibility in internationalization: Is it valuable during an economic crisis? *Strategic Management Journal*, *30*, 537–555. doi:10.1002/smj.v30:5

Lee, S.-H., & Makhija, M. (2009b). The effect of domestic uncertainty on the real options value of international investments. *Journal of International Business Studies*, *40*(3), 405–420. doi:10.1057/jibs.2008.79

Lewis, G. J., & Harvey, B. (2001). Perceived environmental uncertainty: The extension of Miller's scale to the natural environment. *Journal of Management Studies*, *38*(2), 201–234. doi:10.1111/joms.2001.38.issue-2

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent • business & management

Li, J., & Li, Y. (2010). Flexibility versus commitment: MNEs' ownership strategy in China. *Journal of International Business Studies*, *41*(9), 1550–1571. doi:10.1057/jibs.2010.25

Li, J., & Rugman, A. M. (2007). Rel options and the theory of foreign direct investment. *International Business Review*, *16*(6), 687–712. doi:10.1016/j.ibusrev.2007.08.004

Lien, Y.-C., & Filatotchev, I. (2015). Ownership characteristics as determinants of FDI location decisions in emerging economies. *Journal of World Business*, *50*(4), 637–650. doi:10.1016/j.jwb.2014.09.002

Liesch, P. W., Welch, L. S., & Buckley, P. J. (2011). Risk and uncertainty in internationalisation and international entrepreneurship studies: Review and conceptual development. *Management International Review*, *51*(6), 851–873. doi:10.1007/s11575-011-0107-y

Lipshitz, R., & Strauss, O. (1997). Coping with uncertainty: A naturalistic decision-making analysis. *Organizational Behavior and Human Decision Processes*, *69*(2), 149–163. doi:10.1006/obhd.1997.2679

Liu, G., Shah, R., & Babakus, E. (2012). When to mass customize: The impact of environmental uncertainty. *Decision Science*, *43*(5), 851–887. doi:10.1111/j.1540-5915.2012.00374.x

Liu, X., Gao, L., Lu, J., & Lioliou, E. (2016). Environmental risks, localization and the overseas subsidiary performance of MNEs from an emerging economy. *Journal of World Business*, *51*(3), 356–368. doi:10.1016/j.jwb.2015.05.002

Liu, Y., & Maula, M. (2016). Local partnering in foreign ventures: Uncertainty, experiential learning, and syndication in cross-border venture capital investments. *Academy of Management Journal*, *59*(4), 1407–1429. doi:10.5465/amj.2013.0835

López-Duarte, C., & Vidal-Suárez, M. M. (2010). External uncertainty and entry mode choice: Cultural distance, political risk and language diversity. *International Business Review*, *19*(6), 575–588. doi:10.1016/j.ibusrev.2010.03.007

Luo, Y. (2001). Determinants of entry in an emerging economy: A multilevel approach. *Journal of Management Studies*, *38*(3), 443–472. doi:10.1111/1467-6486.00244

Luo, Y. (2003). Industrial dynamics and managerial networking in an emerging market: The case of China. *Strategic Management Journal*, *24*(13), 1315–1327. doi:10.1002/(ISSN)1097-0266

Maitland, E., & Sammartino, A. (2015). Managerial cognition and internationalization. *Journal of International Business Studies*, 46(7), 733–760. doi: 10.1057/jibs.2015.9

Makhija, M. V., & Stewart, A. C. (2002). The effect of national context on perceptions of risk: A comparison of planned versus free-market managers. *Journal of International Business Studies*, *33*(4), 737–756. doi:10.1057/palgrave.jibs.8491042

Malhotra, S., Lin, X., & Farrell, C. (2016). Cross-national uncertainty and level of control in cross-border acquisitions: A comparison of Latin American and U. S. multinationals. *Journal of Business Research*, *69*(6), 1993–2004. doi:10.1016/j.jbusres.2015.10.145

Manolis, C., Nygaard, A., & Stillerud, B. (1997). Uncertainty and vertical control: An international investigation. *International Business Review*, *6*(5), 501–518. doi:10.1016/S0969-5931(97)00018-8

Mascarenhas, B. (1982). Coping with uncertainty in international business. *Journal of Internaitonal Business Studies*, *13*(2), 87–98. doi:10.1057/palgrave.jibs.8490552

Mayrhofer, U. (2004). The influence of national origin and uncertainty on the choice between cooperation and merger-acquisition: An analysis of French and German firms. *International Business Review*, *13*(1), 83–99. doi:10.1016/j.ibusrev.2003.07.002

Miller, K. D. (1992). A framework for integrated risk management in international business. *Journal of International Business Studies*, *23*(2), 311–331. doi:10.1057/palgrave.jibs.8490270

Miller, K. D. (1993). Industry and country effects on managers' perceptions of environmental uncertainties. *Journal of International Business Studies*, *24*(4), 693–714. doi:10.1057/palgrave.jibs.8490251

Minbaeva, D. (2016). Contextualising the individual in international management research: Black boxes, comfort zones and a future research agenda. *European Journal of International Management*, *10*(1), 95–104.

Morschett, D., Schramm-Klein, H., & Swoboda, B. (2010). Decades of research on market entry modes: What do we really know about external antecedents of entry mode choice? *Journal of International Management*, *16*(1), 60–77. doi:10.1016/j.intman.2009.09.002

Mullin, B. A., & Hogg, M. A. (1998). Dimensions of subjective uncertainty in social identification and minimal intergroup discrimination. *The British Journal of Social Psychology/The British Psychological Society*, *37*, 345–365. doi:10.1111/j.2044-8309.1998.tb01176.x

Oetzel, J. M., & Oh, C. H. (2014). Learning to carry the cat by the tail: Firm experience, disasters, and multinational subsidiary entry and expansion. *Organization Science*, *25*(3), 732–756. doi:10.1287/orsc.2013.0860

Ottesen, G. G., & Grønhaug, K. (2004). Exploring the dynamics of market orientation in turbulent environments: A case study. *European Journal of Marketing*, *38*(8), 956–973. doi:10.1108/03090560410539113

Peng, M. W., Wang, D. Y. L., & Jiang, Y. (2008). An institution-based view of international business strategy: A focus on emerging economies. *Journal of International Business Studies*, *39*(5), 920–936. doi:10.1057/palgrave.jibs.8400377

Petersen, B., Pedersen, T., & Lyles, M. A. (2008). Closing knowledge gaps in foreign markets. *Journal of International Business Studies*, *39*(7), 1097–1113. doi:10.1057/palgrave.jibs.8400409

Piaskowska, D., & Trojanowski, G. (2014). Twice as smart? The importance of managers' formative-years' international experience for their international orientation and foreign acquisition decisions. *British Journal of Management*, *25*(1), 40–57. doi:10.1111/j.1467-8551.2012.00831.x

Piekkari, R., & Welch, C. (2010). The human dimension in multinational management: A way forward. *Scandinavian Journal of Management*, *26*(4), 467–476. doi:10.1016/j.scaman.2010.09.008

Prater, E., Biehl, M., & Smith, M. A. (2001). Tradeoffs between flexibility and uncertainty. *International Journal of Operations & Production Management*, *21*(5/6), 823–839. doi:10.1108/01443570110390507

Radaelli, G., & Sitton-Kent, L. (2016). Middle managers and the translation of new ideas in organizations: A review of micro-practices and contingencies. *Journal of International Management Reviews*, *18*(3), 311–332. doi:10.1111/ijmr.12094

Reid, S. D. (1981). The decision-maker and export entry and expansion. *Journal of International Business Studies*, *12*(2), 101–112. doi:10.1057/palgrave.jibs.8490581

Rhee, J. H., & Cheng, J. L. C. (2002). Foreign market uncertainty and incremental international expansion: The moderating effect of firm, industry, and host country factors. *Management International Review*, *42*(4), 419–439.

Richards, M., & Yang, Y. (2007). Determinants of foreign ownership in internaitonal R&D joint ventures: Transaction costs and national culture. *Journal of International Management*, *13*(2), 110–130. doi:10.1016/j.intman.2007.03.001

Root, F. R. (1987). *Entry strategies for international markets*. Lexington, MA: D. C. Heath.

Roth, K., & Kostova, T. (2003). The use of the multinational corporation as a research context. *Journal of Management*, *29*(6), 883–902. doi:10.1016/S0149-2063(03)00083-7

Sanchez-Peinado, E., & Pla-Barber, J. (2006). A multidimensional concept of uncertainty and its influence on the entry mode choice: An empirical analysis in the service sector. *International Business Review*, *15*(3), 215–232. doi:10.1016/j.ibusrev.2006.02.002

Santangelo, G. D., & Meyer, K. E. (2011). Extending the internationalization process model: Increases and decreases of MNE commitment in emerging economies. *Journal of International Business Studies*, *42*(7), 894–909. doi:10.1057/jibs.2011.25

Sartor, M. A., & Beamish, P. W. (2014). Offshoring innovation to emerging markets: Organizational control and informal institutional distance. *Journal of International Business Studies*, *45*(9), 1072–1095. doi:10.1057/jibs.2014.36

Sashi, C. M., & Karuppur, D. P. (2002). Franchising in global markets: Towards a conceptual framework. *International Marketing Review*, *19*(5), 499–524. doi:10.1108/02651330210445301

Shepherd, N. G., & Rudd, J. M. (2014). The influence of context on the strategic decision-making process: A review of the literature. *International Journal of Management Reviews*, *16*(3), 340–364. doi:10.1111/ijmr.2014.16.issue-3

Simangunsong, E. S., Hendry, L., & Stevenson, M. (2012). Supply chain uncertainty: A review and theoretical foundation for future research. *International Journal of Production Research*, *50*(16), 4493–4523. doi:10.1080/00207543.2011.613864

Siqueira, A. C. O., Priem, R. L., & Parente, R. C. (2015). Demand-side perspectives in international business: Themes and future directions. *Journal of International Management*, *21*(4), 261–266. doi:10.1016/j.intman.2015.07.002

Slangen, A. H. L., & van Tulder, R. J. M. (2009). Cultural distance, political risk, or governance quality? Towards a more accurate conceptualization and measurement of external uncertainty in foreign entry mode research. *International Business Review*, *18*(3), 276–291. doi:10.1016/j.ibusrev.2009.02.014

Song, S. (2014). Unfavorable market conditions, institutional and financial development, and exits of foreign subsidiaries. *Journal of International Management*, *20*(3), 279–289. doi:10.1016/j.intman.2013.10.007

Song, S. (2015). Exchange rate challenges, flexible intra-firm adjustments, and subsidiary longevity. *Journal of World Business*, *50*(1), 36–45. doi:10.1016/j.jwb.2014.01.001

Song, S., Lee, S.-H., & Makhija, M. (2015). Operational hedging in foreign direct investments under volatile and divergent exchange rates across countries. *Journal of World Business*, *50*(3), 548–557. doi:10.1016/j.jwb.2014.08.012

Sonnenfeld, J. (1981). Executive apologies for price fixing: Role biased perceptions of causality. *Academy of Management Journal*, *24*(1), 192–198.

Spich, R., & Grosse, R. (2005). How does homeland security affect U.S. firms' internaitonal competitiveness? *Journal of International Management*, *11*(4), 457–478. doi:10.1016/j.intman.2005.09.005

Sutcliffe, K. M., & Zaheer, A. (1998). Uncertainty in the transaction environment: An empirical test. *Strategic Management Journal*, *19*(1), 1–23. doi:10.1002/(ISSN)1097-0266

Tsang, E. W. K. (2005). Influences of foreign owenrship level and entry mode choice in Vietnam. *International Business Review*, *14*(4), 441–463. doi:10.1016/j.ibusrev.2005.03.001

Tseng, C. H., & Lee, R. P. (2010). Host environmental uncertainty and equity-based entry mode dilemma: The role of market linking capability. *International Business Review*, *19*(4), 407–418. doi:10.1016/j.ibusrev.2010.03.002

Vaara, E., & Whittington, R. (2012). Strategy-as-practice: Taking social practices seriously. *Academy of Management Annals*, *6*, 285–336. doi:10.1080/19416520.2012.672039

Werner, S., Brouthers, L. E., & Brouthers, K. D. (1996). International risk and perceived environmental uncertainty : The dimensionality and internal consistency of Miller 's measure. *Journal of International Business Studies*, *27*(3), 571–587. doi:10.1057/palgrave.jibs.8490144

White, G. O., Boddewyn, J. J., & Galang, R. M. N. (2015). Legal system contingencies as determinants of political tie intensity by wholly owned foreign subsidiaries: Insights from the Philippines. *Journal of World Business*, *50*(2), 342–356. doi:10.1016/j.jwb.2014.10.010

Whitelock, J., & Jobber, D. (2004). An evaluation of external factors in the decision of UK industrial firms to enter a new non-domestic market: An exploratory study. *European Journal of Marketing*, *38*(11), 1437–1455. doi:10.1108/03090560410560182

Williams, C., Lukoianova (Vashchilko), T., & Martinez, C. A. (2017). The moderating effect of bilaterial investment treaty stringency on the relaitonship between political instability and subsidiary ownership choice. *Internaitonal Business Review*, *26*(1), 1–11. doi:10.1016/j.ibusrev.2016.05.002

Xu, D., Pan, Y., & Beamish, P. W. (2004). The effect of regulative and normative distances on MNE ownership and expatriate strategies. *Management International Review*, 44(3), 285–307.

Xu, D., & Shenkar, O. (2002). Institutional distance and the multinational enterprise. *Academy of Management Review*, *27*(4), 608–618.

Yasai-Ardekani, M. (1986). Structural adaptations to environments. *Academy of Management Review*, *11*(1), 9–21. doi:10.5465/amr.1986.4282607

Zafar, U. A., Mohamad, O., Tan, B., & Johnson, J. P. (2002). International risk perceptions and mode of entry: A case study of Malaysian multinational firms. *Journal of Business Research*, *55*(10), 805–813. doi:10.1016/S0148-2963(00)00220-4

Sniazhko, *Cogent Business & Management* (2019), 6: 1650692
https://doi.org/10.1080/23311975.2019.1650692

cogent business & management

cogent oa

© 2019 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

You are free to:
Share — copy and redistribute the material in any medium or format.
Adapt — remix, transform, and build upon the material for any purpose, even commercially.
The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:
Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made.
You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
No additional restrictions

You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

***Cogent Business & Management* (ISSN: 2331-1975) is published by Cogent OA, part of Taylor & Francis Group.**

Publishing with Cogent OA ensures:

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com

Essay 2: integration managers' approaches to uncertainty management in Im&a

Sniazhana Sniazhko, University of Vaasa

Abstract

Mergers and acquisitions (M&A) are associated with various uncertainties. Often, large companies designate integration managers to organize post-acquisition integration. However, little is known about what integration managers do in the post-acquisition integration process. This study examines how integration managers deal with uncertainties in post-acquisition integration, specifically how they manage tensions that require different and conflicting approaches. The study is based on an in-depth qualitative case study that examines the post-acquisition integration phase in real-time in the context of two Nordic firms. The study offers two main findings: First, in contrast to the well-established agency theory view, this study finds that integration managers of both buying and acquired firms have a multitude of motives in influencing the post-acquisition integration process when they manage uncertainty. Collaboration between integration managers also proved crucial for success. The second finding concerns the integration managers of acquired firms, the group of managers we know least about, and suggests that, contrary to previous assumptions that they are passive and reluctant recipients, they can successfully act as co-creators and co-producers in the value-added activities of the post-acquisition integration process.

Keywords: post-acquisition integration, integration manager, uncertainty management, collaboration

1. Introduction

Mergers and acquisitions (M&A) are complex and uncertain processes that often involve stress, job loss, restructured responsibilities and derailed careers (Ashkenas, DeMonaco, & Francis, 1998). High performing companies with M&A transaction experience are more proactive in coordinating integration across functions and geographies. Therefore, the key to the success of the deal and indeed of the company largely depends on coordinated leadership throughout the integration process (Teerikangas, Véry, & Pisano, 2011).

Large companies that regularly acquire others have designated integration managers or teams who facilitate and conduct integration activities (Ashkenas et al., 1998). The literature defines integration managers as leaders who build connective grounds for sharing information and resources between integrating firms; and educate managers about the integrating companies' decision-making processes, human resources assessments, culture and business customs; and also help managers to understand their new positions and responsibilities (Ashkenas et al., 1998; Gill, 2002; Schuler, Tarique, & Jackson, 2004; Teerikangas et al., 2011). Such managers might sometimes be called project managers (Teerikangas et al., 2011); however, unlike in traditional project management assignments, employees in an acquisition integration project do not work directly for the integration managers. Integration managers need to motivate and inspire people to be committed to the new organization and make the whole process exciting (Ashkenas & Francis, 2000).

Only a handful of empirical studies explore the role of integration managers (Ashkenas et al., 1998; Ashkenas & Francis, 2000; Teerikangas & Birollo, 2018; Teerikangas et al., 2011; Véry, 2004), and even fewer focus on the role of the managers of the acquired firm (Birollo & Teerikangas, 2019; Graebner, 2004; Meyer, 2006; Monin, Noorderhaven, Vaara, & Kroon, 2013). Despite the practical significance of integration managers, many companies do not provide their integration managers with any formal training (Galpin & Herndon, 2014). The work of integration managers is largely unsupervised in the traditional sense, and they are expected to show initiative and make independent judgments (Ashkenas & Francis, 2000). The challenging context they work in is plagued by merger syndrome, high emotions, stress, and uncertainty, among other factors (Marks & Mirvis, 2010). Consequently, integration managers face uncertainty around various decisions but are simultaneously surrounded by people who are also facing uncertainty. Integration managers' dual-aspect role requires resolving uncertainty related to the integration decisions that they make, but also helping others address their uncertainty issues. As a result, integration managers are a very important group of decision-makers to understand, and yet we know little about them and the activities they perform. This is problematic, if we consider that their role as change agents is critical in managing change and supporting employees through an important transaction such as an M&A (Finkelstein & Hambrick, 1996; Schweiger & Goulet, 2000; Teerikangas et al., 2011).

Most acquisitions have two critical periods: the time between the deal's announcement and its close, and the first 100 days after the close (Ashkenas & Francis, 2000). The most important task of integration managers is to move everyone through those two periods as quickly and as smoothly as possible. With the announcement of a merger or acquisition, uncertainty about the integration of the deal becomes one of the greatest sources of stress among integration managers involved in the process. Uncertainty is defined here as the lack of knowledge about the probabilities of the future state of events (Knight, 1921). Owing to their complex nature, M&A involve unique uncertainties related to various strategic, structural, and cultural aspects (Child, Faulkner, & Pitkethly, 2001; Véry & Schweiger, 2001), which significantly complicate and constrain integration managers' decision-making. Along with uncertainties related to the identification of their roles and responsibilities and the ways of connecting various processes and procedures between integrating organizations, integration managers are obliged to address uncertainties of other employees related to building new relationships, and bridging language and cultural gaps (Ashkenas & Francis, 2000). The management of one's own uncertainty and the uncertainty of others whilst making integration decisions within tight timeframe is therefore one of the main tasks of integration managers in post-acquisition integration and it shapes the outcome of the integration significantly (Ashkenas & Francis, 2000; Haspeslagh & Jemison, 1991).

The decision-making literature offers different ways to manage uncertainty that relate to either reducing it or coping with it, and notes that any method employed to manage uncertainty will also require a balancing of tensions (Grote, 2004; March, 1994). Studies show that uncertainty is an essential part of any decision-making and, if managed properly, can lead to effective decisions that shape the performance of the firm (e.g., Certo, Connelly, & Tihanyi, 2008). Therefore, understanding integration managers' uncertainty management approaches is important to advance our knowledge not only of what integration managers do, but also how their role in the integration process contributes to successful acquisition integration (Steigenberger, 2016). The existing literature tends to look at M&As and post-acquisition integration as strategies and outcomes, often leaving the underlying practices underexplored (Angwin, Paroutis, Connell, 2015; Brueller, Carmeli, & Markman, 2016). This paper addresses this gap by redirecting attention to the underlying individual tensions in uncertainty management during the post-acquisition integration process.

Lack of research focusing on post-acquisition integration is a recognized gap in the M&A literature (Angwin & Meadows, 2015; Graebner, Heimeriks, Huy, & Vaara, 2017; Haspeslagh & Jemison, 1991), which partly explains the scarcity of research on integration managers. Among the existing research, most of the data reflect the point of view of the buyer (Graebner, 2004; Graebner & Eisenhardt, 2004), which sometimes mistakenly implies that the buyer is the only decision-maker of importance (Capron, 1999; Meyer & Lieb-Dóczy, 2003; Reus, Lamont, & Ellis, 2016). Similarly, the prevailing assumption is that being acquired is a sign of weakness and even failure (Graebner & Eisenhardt, 2004), which creates the resulting image of the acquired firm as passive and reluctant to participate in the post-acquisition integration process. In contrast, the acquired firm's involvement in that post-acquisition integration decision-making process has been empirically proven to have the potential to create value that leads to greater revenue-based synergies (Capron, 1999; Graebner, 2004). Overall, these fragmented accounts about integration decision-making processes impede our understanding of how decisions are made and how individual practices of integration managers, and in particular, integration managers from acquired firms, can influence those decisions (Graebner et al., 2017).

The M&A literature contains a body of research centered on emotional contagion theory and emotions (e.g., Avey, Wernsing, & Luthans, 2008; Gooty, Connelly, Griffith, & Gupta, 2010; Raitis, Harikkala-Laihinen, Hassett, & Nummela, 2017), values and identity-building (Hassett & Nummela, 2018; Vaara, Tienari, & Säntti, 2003), and legitimation and power (Vaara, Tienari, & Laurila, 2006; Vaara & Tienari, 2011) to explain individual managers' decisions and behaviors during post-acquisition integration. Although this might be changing, justification for organizational change is based upon a dialogue centered on institutional rationality (Cartwright & Cooper, 2018) that includes heightened self-interest as managers become uncertain about their future careers and with agency theory being integrated most repeatedly to explain such behavior of individuals (Daily, Dalton, & Cannella, 2003; Graebner & Eisenhardt, 2004). This study takes a fresh view on how individual integration managers manage uncertainty and integrates the syndicate view to understand the rationale that drives integration managers' behavior during their post-acquisition integration.

The aim of this research is twofold. First, the article examines the post-acquisition integration process with a focus on how integration managers deal with tensions in uncertainty management. In particular, the study explores how managers make decisions amidst conflicting demands for coping with and reducing uncertainty. Second, the current state of theoretical and empirical research reduces the status of integration managers of the acquired firm to secondary recipients. This article exposes the role of integration managers from the acquired firm and demonstrates how they collaborate over and influence the post-acquisition integration process.

This study contributes to the M&A literature in two main ways. First, it enhances our understanding of how integration managers manage uncertainty by using two different methods: uncertainty reduction and uncertainty coping. By adopting a fresh syndicate view, this research challenges the leading notion of agency theory that integration managers act through a self-interest that is in conflict with the buyer's interest (Graebner & Eisenhardt, 2004; Meyer, 2006). In the context of M&A, collaboration between the integration managers of both buying and acquired firms was found to be crucial for success. In contrast to the tenets of agency theory, this article reveals that integration managers have a multitude of motives for influencing the post-acquisition integration process when they manage uncertainty. The second key contribution comes through the focus on integration managers from the acquired firm, a group of managers we know little about (Graebner, 2004). Contrary to existing perceptions about this group of managers in the literature, that they are passive recipients in post-acquisition integration, our findings from 18 integration managers, eight of whom represent the acquired side, suggest that they can be the opposite; active, co-creating agents that contribute to the success of the process.

2. Literature review

2.1. Uncertainty and the role of integration managers in post-acquisition integration

Existing research has conceptualized M&A as a process ranging from pre-deal considerations to the assessment of M&A integration years after closing the deal (Jemison & Sitkin, 1986). The post-acquisition integration process has been recognized as one of the most important drivers of M&A success (e.g., Angwin & Meadows, 2015; Larsson & Finkelstein, 1999), and has interested M&A scholars for the last 30 years (Graebner et al., 2017; Steigenberger, 2016). It has been described as a risky and complex process (e.g., Galpin & Herndon, 2014) that has a life of its own (Jeminson & Sitkin, 1986) and involves unpredictability, uncertainty, and ambiguity (Graebner et al., 2017). Nevertheless, the M&A literature does not provide a comprehensive understanding of uncertainties that emerge during the post-acquisition integration phase and, in particular, how these are addressed in decision-making. These uncertainties could be revealed in the form of serendipitous opportunities (Graebner, 2004) or unanticipated problems (Vaara, 2003) that would require integration managers from either buying or acquired firms to reconfigure their resources.

The post-acquisition integration process does not occur in a vacuum but is determined by a set of strategic and operational choices made by integration decision-makers. A very small set of decision-makers such as senior executive directors and key senior advisors set objectives, offer incentives, and have the ultimate authority to make final integration decisions at any particular point of integration (Graebner & Eisenhardt, 2004). Nevertheless, to the responsibility of integration managers spans setting strategic tasks, creating a structure for their implementation, defining issues to be prioritized, addressing those issues during post-acquisition integration, and focusing on the right activities at the right time to ensure the integration remains on course (Ashkenas & Francis, 2000). Past research on M&A integration has mainly focused on specific sub-topics, such as integration depth, leadership styles, cultural distance, and experience and learning (e.g., see Schweiger & Goulet, 2000; Steigenberger, 2016; Graebner et al., 2017 for reviews). Integration managers have been largely neglected in that research despite being important decision-makers whose routine implementation practices in the post-acquisition integration decision-making process make them key actors.

Integration managers are likely to face a range of uncertainties that must be managed. For instance, it is acknowledged that among other things, integration managers from the buying firm might experience information asymmetry concerning the target (Jemison & Sitkin, 1986). Integration managers from both buying and acquired firms might experience uncertainty about the definition of their role in influencing the content of the strategy and in the integration process (Ashkenas & Francis, 2000; Haspeslagh & Jemison, 1991), uncertainty about their regular job post integration, or diminished power (Ashkenas et al., 1998). Above all, besides maintaining the day-to-day business operations, integration managers in international M&A need to build new relationships by bridging language and cultural gaps (Ashkenas & Francis, 2000; Vaara, 2003). In addition, integration managers from an acquired firm might be ill informed about the chosen strategic direction of the company and might lack commitment to that strategy, which leads to unsupportive behavior at least, and implementation problems and unsuccessful execution of strategy at worst (Meyer, 2006). Notwithstanding the studies by Haspeslagh and Jemison (1991), Ashkenas et al., (1998), Ashkenas and Francis (2000) and Teerikangas et al., (2011), the field of M&A can be criticized for lacking in-depth empirical research on the uncertainties and ambiguities around integration issues and integration managers (Jemison & Sitkin, 1986; Vaara, 2003). This means that existing studies have paid little attention to the role of integration managers in managing uncertainties during the integration process.

2.2. Managing tensions in uncertainty management

The decision-making literature distinguishes two generic methods for managing uncertainty: uncertainty reduction and coping. The first method, uncertainty reduction, is grounded in rational decision-making models, where it is generally accepted that managers prefer to minimize uncertainties because their presence can impede business success (Gilboa, 2009; Savage, 1972). The assumption is that uncertainty is minimized through such approaches as information gathering, planning, continuous monitoring, and control over execution (Miller, 1992). This method of uncertainty management has been favored by organizations that prefer to have the maximum control over the situation (Beckman, Haunschild, & Phillips, 2004; Mullin & Hogg, 1998).

With regard to uncertainty coping, uncertainties are perceived as sources of innovation and opportunities to develop new competencies. Managers prefer to cope with uncertainty by being flexible in their actions, making situational planning, and providing more autonomy to managers who execute decisions. Such flexibility in uncertainty management becomes a competitive advantage (Alvarez & Barney, 2007; Sarasvathy, 2001; Teece & Leih, 2016), although it could be time consuming and risky (Langfred & Rockmann, 2016). The distinction between these two uncertainty management methods is important because it defines a central characteristic of the way an organization and individual managers in an organization function (Grote 2004; Sniazhko, 2019).

While the distinction between the two main methods of uncertainty management is recognized, existing work does not advocate one method over the other. The focus has instead been directed at searching for a middle ground between the extremes of reducing or embracing uncertainty (Grote, 2009). A balanced method of achieving both control through uncertainty reduction and flexibility through uncertainty coping has been viewed as a useful tool in decision-making under uncertainty (Anand & Ward, 2004; Chattopadhyay, Glick, & Huber, 2001; Liu, Shah, & Babakus, 2012). The basis for this argument is that decisions will have to integrate elements of reducing and coping with uncertainty instead of following a clear preference for one or the other. The integration of these elements is important because of the nature of uncertainty. Minimizing uncertainties works best when the overall level of all uncertainties facing managers is low, while with higher levels of uncertainty that cannot be easily eliminated from the decision-making, the managers have to cope in the course of their work (Grote, 2009;

Thompson, 1967). However, this distinction between various uncertainties and their management methods is hard to sustain in practice. The complex nature of uncertainty could mean that information gathered for the purpose of uncertainty reduction might lead to a new set of uncertainties (Nowotny, 2016). Another problematic example is when managers might perceive a number of different uncertainties at the same time, making the choice of one uncertainty management method over the other particularly difficult (Lipshitz & Strauss, 1997).

Uncertainty reduction and uncertainty coping are uncertainty management methods dealing with conflicting demands (Thompson, 1967). Uncertainty reduction integrates approaches concerned with efficiency, stability, and control. Uncertainty coping, on the other hand, encourages innovation and flexibility. Uncertainty reduction has a short-term focus and manages uncertainties that occur in the current time, while uncertainty coping has a long-term focus and targets uncertainties that will be more important in the future. In the context of the M&A literature, another way of looking at the two methods of uncertainty management is to describe them in terms of the high integration control and the distribution of autonomy that are defined as broader characteristics of integration mode and as different types of influence (Haspeslagh & Jemison, 1991). The terminology identifies the level of autonomy granted to the acquired firm managers and a specific integration level. When reducing uncertainty, autonomy remains with the buying firm's decision-makers who maximize their control in the way their plans are implemented. Coping with uncertainty, on the other hand, is characterized by maximum control and sufficient autonomy of the acquired firm's managers. Tensions often occur during integration and restructuring of the acquired firm since both lead to a certain level of lost autonomy. Unprofessional interference of the buying firm managers may lead to high top management turnover in the acquired firm, which has a negative impact on post-acquisition performance (Hambrick & Cannella, 1993; Véry, Lubatkin, Calori, & Veiga, 1997). The loss of autonomy might also result in resentment (Buono & Bowditch, 1989). The conclusion is that buying and acquiring firms should balance integration or control and autonomy (Haspeslagh & Jemison, 1991; Graebner, 2004).

During post-acquisition integration, tensions tend to arise as integration managers work to manage and minimize uncertainties affecting themselves and others. For example, in identifying and eliminating duplications between the integrating firms, integration managers are likely to gather information about the other entity, and then to use it to reduce uncertainty, and moreover, to establish control over the situation in ever-increasing detail. Nevertheless, an excessive focus on minimizing duplications might diminish value and impede the exploration of new ideas (Krug, Wright, & Kroll, 2014). The intangible nature of knowledge and its embeddedness in people and organizational routines also requires uncertainty management methods that go beyond reduction and are more explorative in nature. This is where a balanced method is needed to predict and control uncertainties, while at the same time increasing the flexibility of decision-making.

2.3. Integration managers of an acquired firm

A number of existing theoretical perspectives in the M&A literature such as, the role of emotions, politicization and power, values and identity construction, and agency theory help to understand the behavior of integration managers in the post-acquisition integration process (Gunkel, Schlaegel, Rossteutscher, & Wolff, 2015; Marks & Mirvis, 2011, 2013). Integration processes involve various socio-political components that can be revealed in the form of manipulation, issue selling, arguing or political rhetoric, which force integration managers to pursue own interests and consequent political actions such as confrontation or power plays (Vaara, 2001, 2003). M&A create different kinds of social identities among integration managers; a situation that prompts different frames for interpreting the integration issues and developing different levels of commitment to the integration ideas (Haunschild, Davis-Blake, & Fichman, 1994).

Among the theoretical perspectives listed, agency theory is one of the most recognized perspectives in the literature on corporate governance in M&A (Daily et al., 2003; Graebner & Eisenhardt, 2004). Agency theory addresses the separation of interests between company owners and managers, and assumes that decision-makers are rational and wealth-seeking individuals who maximize their own utility functions (Jensen, 1998; Piesse, Lee, Lin, & Kuo, 2013). Although this theoretical view explains decision-making when orders are given with authority, it is of limited help in understanding the process through which governance challenges are addressed. The majority of research looks at structural responses to governance challenges, whereas less focus has been directed at the individuals involved; for instance, the frequency of interaction between key actors, agent and principle (Arthurs & Busenitz, 2003; Sapienza & Gupta, 1994). The syndicate view applied in this study, in contrast takes a fresh and alternative view of corporate governance and decision-making in M&A. From the syndicate perspective, managers are partners with owners, and each contributes unique and valuable resources in the pursuit of collective success (Dukerich, Golden, & Shortell, 2002). Key means of decision-making are primarily negotiation and collaboration to achieve consensus (Graebner & Eisenhardt, 2004). The separation of these two theoretical views is important because they differ in terms of the motives ascribed to the managers when making decisions. Agency theory assumes that managers make decisions primarily out of self-interest. The syndicate view assumes multi-dimensional motives such as: self-interest (including financial gain, achievement, and reputation); collective interest (including the success of the company); and altruistic interest (including employee welfare (Graebner & Eisenhardt, 2004)). From the perspective of uncertainty management in post-acquisition decision-making, the syndicate view shifts the focus from traditional control and ratification of decisions (Fama & Jensen, 1983) to broader issues of collaboration where the different voices of integration managers are heeded. Although the syndicate view is rooted in corporate governance models, the focus in this paper is still on individual managers' ways of managing uncertainties. The integrated syndicate view helps to explore the rationale that seems to be driving their behavior.

Including the different voices of integration managers is important in the context of M&A literature, which to date has primarily been buyer driven (Beckman & Haunschild, 2002). The studies that do investigate the management of acquired firms, tend to be based on the assumption that they negatively affect change (Meyer, 2006), or that they are obstructive recipients and self-interested managers who adopt various methods to resist being acquired (Balogun, 2003). That existing understanding of integration managers is problematic because it does not reflect the complete picture of the post-acquisition integration. Along with that, the dominating agency view does not reflect the reality that integration managers must at some point collaborate in the post-acquisition integration process.

It is also important to acknowledge that different managers in a firm face varying degrees of uncertainty, have varying tolerances of uncertainty, and undertake different actions when reducing or coping with uncertainty (Kramer, 1999). It is therefore surprising that there is limited M&A research to date considering the actions undertaken by individual managers in the course of decision-making under uncertainty. This study therefore looks at how integration managers manage tensions in uncertainty management and explores how the integration managers of an acquired firm (rather than those of acquiring firm) influence the post-acquisition integration process.

3. Method

3.1. Research design

This study is a single in-depth case study on integration managers' involvement in the real-time integration decisions of a cross-border M&A between two Nordic multinational corporations (MNCs). The choice of this research method has two main benefits. First, it allowed the researcher to be very close to the setting and the context to capture experiences of individuals in teams and to understand their choice of uncertainty management approaches (Corley & Gioia, 2004; Gioia & Chittipeddi, 1991; Gioia, Price, Hamilton, & Thomas, 2010; Langley & Abdallah, 2011). Second, the chosen research design provided the means to elicit multiple voices of potential importance in understanding the uncertainties in integration managers' decision-making processes. This qualitative research integrates a systematic inductive approach based on a combination of methods such as open coding (Glaser & Strauss, 1967), the process of examining and categorizing data (Strauss & Corbin, 1998), and a systematic approach to new concept development (Gioia, Corley, & Hamilton, 2012) to conduct, analyze and present the findings of this research[3]. The main reason for this methodological choice is the nature of the research itself that focuses on concept (vs. construct) development which is "a more general, less well-specified notion capturing qualities that describe a phenomenon" and, therefore, cannot be strongly rooted in what is already known (Gioia et al., 2012: 2). In addition, this methodological choice is the most suitable to analyze a generous amount of qualitative data where it is desirable to generate themes by making comparisons within a case.

This paper is based on multiple data sources: 20 semi-structured interviews with 18 integration managers (of whom eight were from the acquired firm and 10 from the buying firm) collected during the integration in 2015–2016; 25 issues (224 pages) of the merging companies' weekly newsletters on M&A[4]; one webcast video (46 min) from the meeting where the official announcement of the acquisition was made, and one visit to the acquired company's factory during the integration. Moreover, all publicly available documentation and newspaper posts were used to enhance the author's understanding of the integration process. Access to the real-time integration planning and execution process is a useful complement to the tendency in existing studies to conduct research based on retrospective data (e.g., Graebner & Eisenhardt, 2004). The real-time nature of the data meant that they were collected during decision-making processes or very soon afterward. Access to the real-time data in this research is a strength for two main reasons. First, it

---

[3]Whilst acknowledging some of the criticism that has been leveled at the Gioia methodology in terms of it being focused on the details and losing sight of the bigger picture, as well as describing phenomena at a high level of aggregation (Langley and Abdallah, 2011), this study applies Gioia methodology to organize the structure, to systematically reduce the data and to perform the coding.
[4]The newsletters were the main sources of the merger update to the employees in the merging companies. Each issue included a message from top management, a weekly update on the integration process from a particular department, a Q&A session, and interviews with the integration managers responsible for the integration of particular departments. The content of the newsletters was very detailed and informative with the specific examples of the decisions being made. Therefore, in certain occasions, the information from the newsletter was integrated as the primary data along with the interviews conducted by the author.

allowed the author to comprehend how integration managers experienced uncertainties as they unfolded and to record what was real to them at the time of decision-making. Second, it captured rich and high-quality data on the integration process, which allowed the author to capture some major reactions when they were fresh and the integration managers themselves were trying to make sense of them, and that helped to avoid post-rationalization when the outcomes were unknown.

This paper adopts *interpretive sense-making* as the method of theorizing (Lincoln & Guba, 1985; Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mantymaki, 2011). In line with integrated methods[5] approaches (Gioia et al., 2012; Glaser & Strauss, 1967; Strauss & Corbin, 1998), this research assumes that the interviewed integration managers construct their realities about the integration process and are knowledgeable agents who can explain their thoughts, intentions, and actions. To discover new concepts and to give voice to the interviewed integration managers, no prior constructs of scientific understanding of the post-acquisition integration phase or M&A concepts were ascribed to the managers (e.g., identity politics or value-capturing roles). To capture personal accounts of what the integration managers perceived, particular attention was paid to the ways in which integration managers understood the context of integration and how they talked about that understanding (Van Maanen, 1979).

The interpretivist approach taken to make sense of the case background allowed the author to capture various voices and views of integration managers which is important in understanding how integration managers' contrasting views about the same events came to co-exist. The integration managers' reflections on the recent integration decision-making processes might incorporate some cognitive dissonance in that some might have reported situations in which they portrayed themselves in a positive light to justify certain emerging failures. Company newsletters and discussions with the merger management team served as important sources for triangulation and understanding the background to events and the uncertainty management methods mentioned by integration managers during the interviews (Miles & Huberman, 1994).

3.2. Case background

The case in focus in this study is a transformational cross-border integration of two Nordic MNCs in the industry of industrial goods and services that took place in 2014. The executives of the integrating companies stated that the merger was not

[5]Although the Gioia methodology is more widely used among studies in the positivistic paradigm, this study follows interpretivist tradition, which assert that knowledge is produced as an act of human interpretation (Van Maanen, 1979).

undertaken for cost-cutting purposes but to create synergy and complementarity among two strong players in the industry. The reasoning strengthens the potential usefulness of the uncertainty coping method in this context. Although the buying company acquired another company, only one of its business segments was merged with that acquired company. As part of the deal, the president of the acquired company became president of the newly emerged company. Haspeslagh and Jemison (1991) categorize this type of integration as transformational or symbiotic. Symbiotic integrations are one of the most complicated forms to manage and require both a high degree of integration and a high degree of autonomy.

Although the integration was described publicly as a merger, as is typical of many mergers, the integration managers from both the acquiring and acquired firms saw it as an acquisition. An official integration team was established to lead the process of integration between the two firms, to provide information about the new strategic direction, and communicate decisions to the staffs. The core of the integration team was 11 workstreams that were presented in the form of integration managers' teams with one integration manager being a lead and one to three other integration managers being co-leads per workstream. Each workstream focused on the transition within each functional area: sales, productivity, supply chain, R&D, product portfolio, branding, marketing, finance, HR, IT, and communication. Executive directors of the integrating firms assigned managers from both firms to each of these workstreams. At the time of the data collection, integration managers from the acquired firm were leading R&D, communication, finance, sales, and branding areas in the workstreams. Integration managers from the buying firm were leading the following areas: supply chain, product portfolio, productivity, HR, IT, and marketing. The integration managers were informed about the acquisition, interviewed, and appointed to their positions as integration managers two months before the official announcement of the acquisition. The appointed integration managers worked in groups of two to three people to find the best solutions within each area. The progress of the workstreams was supervised by the corporate merger management office (MMO) that consisted of one head manager and four managers that provided execution support in communication, product management, financial and strategic areas of the integration. All managers of the MMO were represented by integration managers of the buying firm.

3.3. Data collection

The first round of interviews with integration managers began at the end of 2015—a year after the case companies' official M&A announcement—and continued over the following seven months. During that period, eight integration managers from the acquired firm and five integration managers from the acquiring firm were interviewed. The second round of interviews with the MMO took place in June 2016, which was the period characterized by the integration managers as the end of the execution of key decisions related to the integration, that is, defining a new organizational structure. During that period, five integration managers from the acquiring firm were interviewed. One month separated the two interview rounds, which allowed the researcher to reflect on the respondents' reports. The average interview lasted for about 60 minutes, and the interviews were conducted in English. The researcher created a record of all the interviews through live recordings, simultaneous note-taking, and post-interview note-taking. The standard procedures for conducting qualitative semi-structured interviews (Kvale & Brinkmann, 2015) were followed to organize the interview questions into two main sections. The first section covered interview questions related to background information on the informants, including their current position, job roles, work history, and experience. The second section posed questions around the main topic of this research and the following ae examples of the questions asked, "What changes has this acquisition/merger brought to your work?"; "With reference to this period of integration, could you please provide an example of an uncertain situation you have recently been involved in and how you have worked to resolve it?" In some instances, the interviewer had to clarify what an uncertain situation meant, while most interviewees were clear about various types of uncertainty and how they differed from risky situations.

3.4. Data analysis

Data analysis was organized into two main steps. The first step began with the listing of every uncertain and complex situation that integration managers reported experiencing during the integration decision-making (with the number of issues varying between three and 14 per integration manager) as well as various tensions that resulted from uncertainty. To give an example, integration managers were uncertain about the future strategy of a new organization, about the decision-making style of a merging partner and how decisions should be made in the future, about the long-term position of their subordinates, about their own competencies and roles during the integration process and their permanent jobs after the integration. A detailed illustration of uncertainties perceived by integration managers is provided in Appendix A. Tensions are discussed in the findings section. The list was then re-grouped and coded into a comprehensive set of integration manager responses to the changes during the integration. Data reduction allowed to create categories (Gioia et al., 2012; Strauss & Corbin, 1998) broad enough to capture different uncertainty management methods.

The output of the first step was a set of different uncertainty management approaches that were coded in an orderly fashion from the raw data (quotes from the interviews, company visits, and excerpts from the companies' newsletters and a webcast video). The names for the first-order concepts were not primarily borrowed from the language of the interviewees (unlike in some other qualitative studies e.g., Corley & Gioia, 2004), but rather served to provide simple descriptions of commonly observed situational conditions in the data. During the second step, axial coding (Strauss & Corbin, 1998) was applied to develop a more abstract and robust description of the uncertainty management methods observed in the data and to construct a theoretical dimension (Corley & Gioia, 2004). The second-order concepts and theoretical dimension terms for uncertainty management methods (i.e., uncertainty reduction and uncertainty coping) were adopted from the existing literature to create categories for analysis and to keep the consistency of the terms in the research on uncertainty. Figure 1 illustrates the structure of the data that describes the final set of theoretically aggregated themes and the first-order concepts from which they are derived (see Appendix B for exemplary excerpts for each first-order concept in Figure 1).

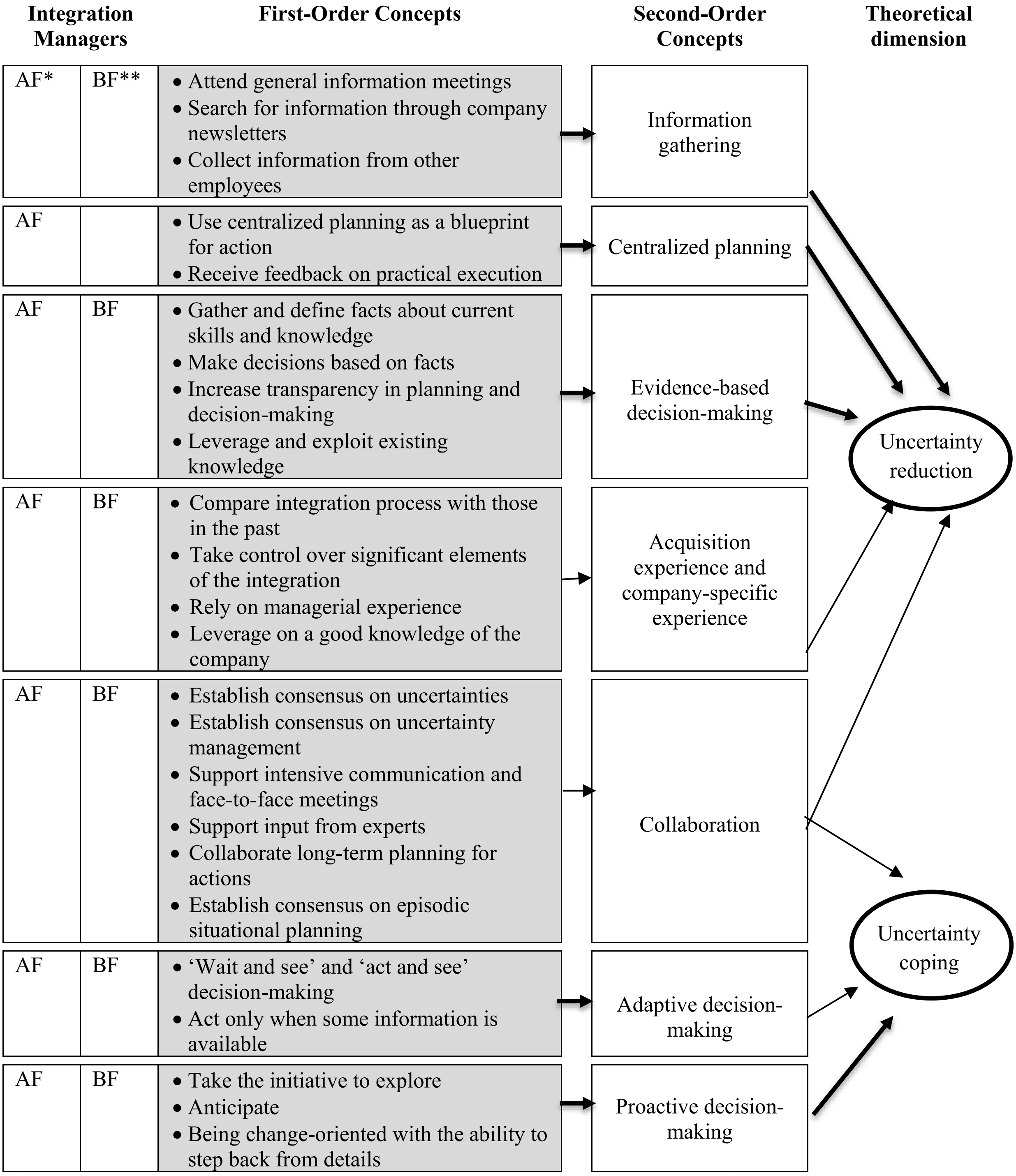

Fig. 1. Extract coding concerning uncertainty management approaches

4. Findings

This section presents the research findings on how integration managers manage uncertainty and, in particular, how integration managers make decisions amidst conflicting demands to cope with and reduce uncertainty. The paper then presents the role of integration managers from the acquired firm and examines their role in uncertainty management and how that can influence the integration process. Finally, the paper considers practical implications that underpin these enabling activities drawing illustrations from the case companies.

4.1. Uncertainty management methods

Integration managers from both acquired and buying firms were observed to use various methods to manage the uncertainties that emerged during post-acquisition integration. Based on existing literature, the author identified these methods as uncertainty reduction and uncertainty coping. Uncertainty reduction encompassed the efforts of integration managers to take control of the situation, establish stability, and minimize uncertainty. More specific activities included *information gathering*, implementing *centralized planning*, making *decisions based on facts and evidence*, drawing on *acquisition experience, and company-specific experience* and *collaborating*.

Information gathering activities were most frequently used by integration managers of both firms in the initial stages of the integration process. The main purpose of information gathering was to understand the general situation in the integrating firms, to determine the integration managers' responsibilities and be aware of what was expected of them.

Once they had obtained basic information about the integration, the integration managers realized that several workstreams in the acquired firm such as those designated productivity, HR, and IT were expected to adopt the processes and business models of the buying firm. Therefore, uncertainties affecting the integration managers from the acquired firm concerned understanding the buying firm's practices and the ways in which those practices could be implemented in the acquired firm. To reduce those uncertainties, integration managers from the acquired firm referred to *centralized planning* provided by the buying firm.

Integration managers from both firms embraced *evidence-based decision-making* as a means to control the integration. Gathering information on the skills and knowledge in both companies and increasing the transparency of organizational processes enabled decision-making based on facts rather than assumptions or emotions.

Drawing on previous acquisition experience and company-specific experience can have a significant impact on the perception of uncertainty and the desire for control (Makhija & Stewart, 2002). Although only a few integration managers from either firm had previous experience in acquisition, most had experience in business transfers or mergers within one company. Naturally, integration managers have a tendency to compare the current integration process with previous ones, identifying and taking control over elements that proved important previously, such as keeping the right people on board. At the same time, most integration managers had lengthy company-specific experience, which was particularly important for those who lacked acquisition experience. It is that experience that enables integration managers to anticipate whether a new structure or approach would work for their companies.

Finally, integration managers from both firms *collaborated* to reduce uncertainty. Collaboration implies forming consensus about where uncertainty emerged and on how to manage it. Through collaboration, integration managers shared information and planned actions on integration. Since the speed of decision-making varied significantly among integration managers involved with different workstreams, those who were ahead of time collaborated intensively with the ones lagging behind on how to reduce uncertainty related to the distribution of work, the establishment of a new structure, and determination of a new type of governance for making decisions.

In terms of uncertainty coping, integration managers used this method to increase decision-making flexibility. Uncertainty coping was used when there were uncertainties that could not be eliminated or minimized. The following three approaches to uncertainty coping were observed in this research: *adaptive decision-making*, *proactive decision-making,* and *collaboration*.

Integration managers from both firms used *adaptive decision-making* as an approach to cope with uncertainty in situations that were hard to predict and more turbulent. Findings indicate that the reaction of customers to the acquisition was one commonly perceived form of uncertainty that could threaten the continuity of the relationship; loyalty among supply chain actors; and retention of the key employees. Faced with these uncertainties, integration managers from both firms used reactive coping. Integration managers prioritized flexibility, adopted 'wait and see' and 'act and see' approaches and preferred to act only when some information was available.

In the situations when uncertainty was impossible to eliminate and integration managers still had to act, *proactive decision-making* was one of the most commonly observed behaviors of integration managers from both firms. The following elements of proactive decision-making were observed among integration managers from both firms: taking the initiative to explore, anticipation, and changing the direction of the flow of activities. These actions were taken by the integration managers of both acquired and buying firms when they were uncertain about whether they had effectively organized their workload and distributed it among different colleagues in different workstreams.

As in the case of reduction, integration managers also used *collaboration* to elevate and situationally cope with uncertainty. It is important to note, however, that the perspective on collaboration was different in the uncertainty reduction and coping approaches. In regard to uncertainty coping, collaboration was seen as a type of managerial behavior where integration managers emphasized collaborative planning as the route to flexibility and situational planning rather than control. More specifically, alternatives to actions were recognized, elaborated upon, and chosen flexibly based on the evolving situation. Those situations emerged when organizational differences could not be identified through facts and figures alone; that is, when the differences were embedded in people's characteristics and the firms' culture or work practices made them difficult to grasp. In the face of that type of uncertainty, collaboration offered a means to establish consensus on episodic situational planning, to support intensive communication among integration managers, and to gather input from experts.

To conclude, the variety of activities related to both uncertainty coping and reduction, in which uncertainty was equally spread among integration managers of both firms, illustrates a complex set of underlying individual actions and interactions, which make the realization of the post-acquisition integration process possible. Because M&A scholars do not always make explicit reference to complicated underlying patterns of actions and individual practices, they often explain the post-acquisition integration process in the form of collective concepts such as integration depth, leadership, cultural differences, or experience (Schweiger & Goulet, 2000). This study illustrates that integration managers as both individuals and as part of a workstream play a crucial role in shaping the decision-making process during the post-acquisition integration process through the type of uncertainties they recognize and the methods of uncertainty management they apply.

4.2. Tensions in uncertainty management

Post-acquisition integration requires a good knowledge of how the various parts of the merging firms can work together. The findings of this research suggest that construction of a big picture was problematic for integration managers during the process of integration and that they found the corporate communication about the "merging the best of both" vision to be paradoxical, as illustrated in the following example:

> As we have stated from the very beginning, we are following the principle of Stronger Together in this process. This means that everyone will be treated equally in the process. The color of the brand does not matter. To be able to do this requires that I, and also all of you, take off the [acquired firm] 'hat' or the [buying firm] 'hat', so to speak, and we put on a new hat which is the [new firm's name after the integration] 'hat'...

and

> Until yesterday, we were competitors. Now, we have a common goal...with the muscle and competences to become a market leader... (CEO of the acquired firm, Companies' weekly newsletter on M&A)

> ...As of today, [buying firm] and [acquired firm] are no longer competitors. Instead, we are colleagues working together in one [industry] business toward a common goal (CEO of the buying firm, Companies' weekly newsletter on M&A).

Three key tensions emerged in the data: the inherent complexity of best practice, institutional leadership, and perceived justice. First, the emphasis on combining resources (i.e., "the best of both") was infused with concern, as integration managers from both firms were uncertain about how to define "the best", in their own firm and in another firm, and indeed in general. Although concepts such as best practice are a useful managerial tool to transfer knowledge in organizations, the findings of this research illustrate that the method's practical application proves the opposite. The complexity of its practical application has been also observed in the study by Vaara, Tienari, and Björkman (2003) that found that in practice the notion of best practice is surrounded by complexities, ambiguity, and political maneuvering that result in unanticipated problems and disappointments in the post-acquisition integration process.

Second, the CEOs' emphasis on having an innovative approach "to become a market leader" entailed uncertainties for integration managers on the practical side. The exact content of a new market leader strategy was not defined. Without the content of a new strategy, which the literature attributes to the lack of institutional leadership (Sitkin & Pablo, 2004), integration managers were expected to build a new organizational structure and team with the aim of becoming number one in the market.

Third, the integration managers, especially those from the acquired firm, perceived a tension that related to justice. They were concerned that the buying firm was not changing as expected, which was challenging a certain norm of justice and creating even more uncertainty related to the buying firm's initial intention. Although initial ideas of justice and equality might foster sociocultural integration, it can become a liability later on when changes are required (Monin et al., 2013). The CEO's statement portraying an integration where everyone was treated equally and changes in one firm would be synchronized with those in the other, led integration managers to have accentuated expectations of equality and distributed justice where every aspect of the merger was expected to be equal. However, in practice integration managers from the acquired firm indicated that it was difficult to maintain consistent images of equality.

The findings of this research illustrate that integration managers used activities relating to both reduction and coping to address the most complicated sets of uncertainty. At the same time, the existing literature states that uncertainty reduction and uncertainty coping are uncertainty management methods of conflicting demands (Grote, 2009). Thus, integration managers were applying uncertainty management methods that required different resources. In practice that meant that they had to balance between the extraction and application of tacit knowledge about their own firm and exploration of new practices for a newly merged firm. For example,

> Because there was no model in place, we had a very limited time to do this with [name of integration manager from buying firm] who was a co-lead. Then we basically took the balanced score card and weighted that on people and processes and just innovated something that would have been good enough and thought that we are going to improve the template along the road, if needed. So, there we basically were acting on our instincts and our 20-year management experience. Ok, these things are typically important to people and these are important from the process point of view. Let's find out how these are in a new company. So, there it was quite limited data available at all for decision-making. (Integration manager from an acquired firm, interview)

This example illustrates that applied previous acquisition experience and company-specific experience allowed integration managers to generate tacit knowledge about the superiority of their own firms to apply those superior practices of organizational knowledge in the integration. Equally, proactive decision-making was represented through change-orientation and the integration managers' ability to step back from details and problems to create a more holistic understanding of the integrating firms and to develop innovative solutions.

To address these tensions in uncertainty management, integration managers collaborated. The integration managers understood collaboration as working closely together and doing something together. As in most human relationships, collaboration among integration managers started with their acknowledgment of the fact that they were interdependent. All these aspects make collaboration to be a very important element in the integration managers' decision-making in this context:

> We collaborate a lot. I was the lead, and he was the co-lead, but we did it together. Of course, as soon as I was troubled, I was calling him when I was upset and he would reply, 'Do not worry, take it easy, we will find the solution, no problem'. Very good attitude. He was really calming me down when I was upset. (Integration manager from an acquired firm, interview)

4.3. The role of integration managers from an acquired firm

M&A literature typically presents the buying firm as the dominant decision-maker. The findings of this research, however, suggest that integration managers from an acquired firm were active participants and influencers in the way post-acquisition integration decision-making was evolving. To answer the second research question about the role of an acquired firm's integration managers, this section offers two unique insights.

First, the more difficult the decisions were, and the stronger the tensions to be addressed, the greater was the need for action on the part of integration managers from the acquired firm. Their main role was to encourage open discussion about different issues and exploration of alternative solutions where both sides could benefit. The main intention of the integration managers from the acquired firm was to create a space for merging insights of integration managers with a different perspective on the integration. Some examples of the thoughts of integration managers of acquired firms are as follows:

> It is more integration than diffusion. We are kind of learning from each other. It is a new beginning for the business because their business has been flat for quite a while, and our business has been quite flat for a long time, so they tried to get a boost for their business. (Integration manager from acquired firm, interview)

> They [buying firm] are changing their work also. So, we see that we are not the only one who is learning, they are learning too. (Integration manager from acquired firm, interview)
>
> On the governance side, it is totally an acquisition. But when you come down to planning and execution, it is a merger. At least in the R&D unit, we have a lot of discussions. We learn from each other and select what is best. (Integration manager from an acquired firm, interview)

Second, integration managers from the acquired firm created value by mitigating uncertainties and filling in the gaps in the operational side of the integration process. Here integration managers were trying to ensure that the acquired firm's organization-specific knowledge and practices were sustained and further developed in a new organization, particularly, in the projects where strategic content was not so explicit and where preferences for particular practices were not specified. The development of those practices was focused on the transfer of both tacit and explicit knowledge of the acquired firm's operational processes.

> This is also quite typical and the question is, 'How should the messages be conveyed to the organization so that we could understand what we are trying to do? What are the basics?' If we want to select the best practices, then what? Because always we select other practices that we used to have, then somebody has to change. And typically, people are not so willing to change. And the question is how to make this both ways? (Integration manager from an acquired firm, interview)
>
> During the merger stream work, the activities were pretty much set by [buying firm's] side. So, it was more or less first trying to harvest the so-called quick wins. I had to convince the people about the target to see that it is not realistic. And then, of course, the outcome has been supporting and witnessing the facts that I have been stating during the merger. But at the very beginning, it was very much like pushing and trying to get savings to achieve, but the reality was that it was not easy. (Integration manager from an acquired firm, interview)

To conclude, the two insights above illustrate attempts to reframe the dominant understanding about the acquired firm's integration managers as passive and reluctant failures (Meyer, 2006). This study illustrates that they are co-creators and co-producers of value-added. The syndicate view suggests a multitude of views of these integrators and emphasizes their significance in social exchange, interdependence, and collaboration. This finding is particularly intriguing because of the prior research that characterized integration managers from the acquired firm as subordinates experiencing a reduction in status (Jemison & Sitkin, 1986).

The syndicate view allows us to interpret the behavior of integration managers from an acquired firm as effective ways to cope with this status-reducing event.

5. Discussion and Conclusion

5.1. Theoretical implications

To answer the first research question on how integration managers manage tensions in uncertainty management, this paper makes two key contributions. First, managing tensions caused by uncertainty occurs through collaboration among integration managers, who need trust, consensus, and open communication for the collaboration to be effective. Since collaboration is not a common practice in the empirical examples among the M&A literature, the findings of this research challenge and expand what is known about integration managers by articulating their strong emphasis on collaboration. Traditionally, integration managers are perceived as a linking pin between the strategic apex and the operating core (Likert, 1961), who supply information upward and pass strategic decisions down (Thompson, 1967; Balogun, 2003). Their responsibility is to take the plans handed down by senior management and implement them within their functional areas to align organizational action with strategic intent (Floyd & Wooldridge, 1997; Nutt, 1987). Integration managers can be both the target and agent of change (Meyer, 2006). Those integration managers who have a negative attitude and impede change are most likely to be replaced (Scarbrough & Burrell, 1996). Accordingly, extant M&A literature that views the relationship between participants as characterized by principal–agent, independent, and hierarchical roles (Graebner & Eisenhardt, 2004) directs little attention to collaboration, whereas the findings of this study suggest it plays a considerable role. Therefore, this paper challenges the dominant view of agency theory in the post-acquisition integration process and suggests that the relationship between participants can be interdependent and also developed at the level of partners and peers, the type of relationships that are heavily promoted by the syndicate view (Fama & Jensen, 1983).

Although there is little guidance from the literature, the findings of this research indicate that integration managers are likely to have a multitude of motives that guide their choice of approach adopted to manage tensions in uncertainty management. The factors that contributed to integration managers' promotion of self-interest in their decision-making was critical, yet their altruistic motives were necessary for a smooth integration. It was found that although integration managers were concerned about retaining their job and seniority in the organizational hierarchy, many integration managers were also concerned about the prosperity of their firm after integration and were choosing uncertainty management methods that would foster that. Surprisingly, they even prioritized addressing uncertainties of the combined firm and their subordinates over their own uncertainties.

The adoption of a syndicate view allowed the researcher to understand why integration managers would act this way. Integration managers' concerns over their position were driven by emotional factors, especially status and achievement. Integration managers from acquirer firms and perhaps even more so from acquired firms, perceived integration as an attractive opportunity to be promoted and prosper through partnership in the combined firm. Many integration managers wanted to ensure that their combined company would prosper as the result of a successful partnership, and accordingly sought uncertainty management approaches that everyone could support and eliminated alternatives that were the least acceptable along any dimension of interests.

Such a strong emphasis by integration managers on collaboration noted in this research could perhaps be understood as context dependent. The integration in this study took place between companies in two Nordic countries and the decision-making style of the organizations in Nordic countries is characterized as, among other things, informal, personal-contacts oriented, and desiring to achieve consensus (Hofstede, 1980). Second, as noted earlier, the type of integration in this case study has been characterized as symbiotic because it requires both a high degree of integration and a high degree of autonomy to succeed. The literature recommends that successful management of symbiotic integration requires a delay in the integration process, providing an opportunity for mutual learning and the establishment of trust between the two organizations before the integration occurs (Graebner, 2004; Haspeslagh & Jemison, 1991). Those two contextual factors may help understand why collaboration was an important element for the integration managers in addressing uncertainty management tensions.

The second key contribution of this study is that the management of tensions in uncertainty management is a more dynamic process than has been previously perceived. The dynamic nature means that integration managers' preferences for uncertainty management methods alternated between uncertainty reduction and coping, rather than pursuing the simultaneous application of those methods. A number of existing studies have focused on examining how the buyer's and the target's resources are allocated between integration and autonomy decisions (Bauer & Matzler, 2014; Zaheer, Castañer, & Sounder, 2013). For example, a strategic task requires a greater degree of integration, whereas an organizational task requires a lesser degree of integration (Pablo, 1994). The nature of the existing findings on the allocation of resources between integration and autonomy decisions illustrates that this decision-making process is primarily static. The findings of this study, however, illustrate that integration decision-making does not necessarily signify control and autonomy at the same time. It could also mean a process of constant switching between uncertainty reduction and uncertainty coping, or integration and autonomy.

A couple of existing studies outside of the M&A literature found that different parts of an organization can be organized differently in response to the different levels of uncertainty with confronting them (e.g., Lawrence & Lorsch, 1967). Furthermore, research has observed that organizational units can switch between different organizational uncertainty management methods (e.g., LaPorte & Consolini, 1991). Most importantly, on an individual level, workers can switch between methods of operation in response to uncertainty, for instance, between controlled standardized tasks and continuous innovative activities (Victor, Boynton, & Stephens-Jahng 2000). Similarly, in the context of this study, integration managers were observed to apply different uncertainty management methods through collaboration which meant continuous communication about the shared understanding of the situation and keeping each other abreast of the overall demands of the situation. Hence, the understanding of integration managers' uncertainty management decisions emerged as an important key to understanding how collaboration contributes to the management of tensions.

To answer the second key research question and to understand the role of integration managers from the acquired firm in the post-acquisition integration process, the paper offers one key contribution. The paper discussed the importance of the role of the integration managers from the acquired firm when seeking to both sustain the value of the acquired firm and achieve the mutually set goal in the newly integrated organization. This made it possible to illustrate the importance of their role as co-creators and co-producers of value-added. All this makes a clear contribution to the M&A literature as it provides detailed empirical evidence of the actions of the integration managers who represent both acquired and buying firms. Unlike the underlying assumption in the existing literature that the buying firm imposes its knowledge on the target firm and seldom considers the acquired firm's offer, the findings in this paper bring up an interesting observation that integration managers were not afraid to adopt collaborative approaches particularly in terms of identification of uncertainty and choice of uncertainty management approach. Thus, this makes it a significant contribution to the M&A literature and emphasizes that the post-acquisition integration process could be also viewed as social exchange between integration managers from both the acquired and buying firm that is shaped by considerations of long-term fit and where integration managers from the acquired firm are influential and active participants.

5.2. Practical implications

For organizations and integration managers in practice this paper outlines uncertainty management methods that support decisions on integration so as to achieve desired acquisition outcomes. Uncertainty reduction and uncertainty coping prove to be generic methods to assist uncertainty management, the application of which depends on the levels and types of uncertainty facing integration managers. Uncertainty balancing, through which the balance of control and autonomy is achieved, remains the ultimate goal of the management of uncertainty. To achieve this balance, the practitioners should follow a decision-making process that considers the costs and benefits of reducing, sustaining, and increasing uncertainty in the integration process. Collaboration is recommended in establishing effective relationships among integration managers, within and across integration workstreams, which allows a fair distribution of uncertainty among the integration managers involved.

5.3. Limitations and future research

While this study explores integration managers' decision-making processes under uncertainty, it does not look at the success or failure of the integration. Nevertheless, this limitation is not considered a significant threat to this research, which is grounded one step prior to the decision-making outcomes and seeks to expose the different uncertainties and uncertainty management methods as they evolve. To discern what works and what does not, we need to understand what integration managers do during the integration decision-making processes. Future studies would benefit from a longitudinal approach in order to fully grasp the nature of integration managers' decision-making during post-acquisition integration. A longitudinal examination of the relationships among uncertainty management methods adopted by integration managers, integration implemented activities, and post-acquisition integration outcomes should be established. Understanding those links would be of great value in revealing how the processes work and in testing their underlying theoretical mechanisms.

While informative, the data of this qualitative study come from one post-acquisition integration case and in a certain sense might lack a possibility of generalizing the results to other M&A types and contexts. It is uncertain whether the results of this research could be applied, for example, among hostile post-acquisition integrations, especially as this study's respondents emphasized the important role of collaboration due to frequent communication and knowing and trusting other integration managers they had to collaborate with. For further studies, it would therefore be necessary to explore the extent to which the organizational context and structure might affect the acceptance of collaboration among integration managers and thus their relationship with the managing directors concerned. Moreover, more research would be required to understand the effects of having integration managers who have considerable experience in integration decision-making processes in support of collaboration.

To conclude, this study shows that the management of uncertainty in post-acquisition integration is never simple. Integration managers' understanding of a new vision significantly shapes their post-acquisition integration decision-making processes. Nevertheless, integration managers from both buying and acquired firms, in particular, need to agree to collaborate to combine uncertainty reduction and uncertainty coping activities. Lastly, to steer collaboration and to address uncertainty management methods, integration managers have to build trust, achieve consensus, and support communication.

References

Anand, G., & Ward, P. T. (2004). Fit, flexibility and performance in manufacturing: Coping with dynamic environments. *Production and Operations Management*, 13(4), 369-385.
https://doi.org/10.1111/j.1937-5956.2004.tb00224.x.

Angwin, D. N., & Meadows, M. (2015). New integration strategies for post-acquisition management. *Long Range Planning*, 48(4), 235-251. https://doi.org/10.1016/j.lrp.2014.04.001.

Angwin, D. N., Paroutis, S. & Connell, R. (2015). Why good things Don't happen: The micro-foundations of routines in the M&A process. *Journal of Business Research*, 68(6), 1367-1381. https://doi.org/10.1016/j.jbusres.2014.12.007.

Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1(1-2), 11-26. https://doi.org/10.1002/sej.4.

Arthurs, J. D., & Busenitz, L. W. (2003). The boundaries and limitations of agency theory and stewardship theory in the venture capitalist/Entrepreneur relationship. *Entrepreneurship, Theory and Practice*, 28(2), 145-162.

Ashkenas, R. N., DeMonaco, L. J., & Francis, S. C. (1998). Making the deal real: How GE capital integrates acquisitions. *Harvard Business Review*, 76(1), 165-178.

Ashkenas, R. N., & Francis, S. (2000) Integration managers: Special leaders for special times. *Harvard Business Review*, Nov-Dec, 109.

Avey, J. B., Wernsing, T. S., & Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *Journal of Applied Behavioral Science*, 44(1), 48-70. https://doi 10.1177/0021886307311470.

Balogun, J. (2003). From blaming the middle to harnessing its potential: Creating change intermediaries. *British Journal of Management*, 14 (1): 69-83. https://doi.org/10.1111/1467-8551.00266.

Bauer, F., & Matzler, K. (2014). Antecedents of M&A success: The role of strategic complementarity, cultural fit, and degree and speed of integration. *Strategic Management Journal*, 35(2), 269-291. https://doi.org/10.1002/smj.2091.

Beckman, C. M., & Haunschild, P. R. (2002). Network learning: The effects of partners' heterogeneity of experience on corporate acquisitions. *Administrative Science Quarterly*, 47(1), 92-124. https://doi.org/10.2307/3094892.

Beckman, C. M., Haunschild, P. R., & Phillips, D. J. (2004). Friends or strangers? Firm-specific uncertainty, market uncertainty, and network partner selection. *Organization Science*, 15(3), 259–275. https://doi.org/10.1287/orsc.1040.0065.

Birollo, G., & Teerikangas, S. (2019). Integration projects as relational spaces: A closer look at acquired managers' strategic role recovery in cross-border acquisitions. *International Journal of Project Management*, 37(8), 1003-1016. https://doi.org/10.1016/j.ijproman.2019.09.002.

Brueller, N. N., Carmeli, A., & Markman, G. D. (2016). Linking merger and acquisition strategies to postmerger integration: A configurational persepctive of human resource management. *Journal of Management*, 44 (5), 1-26. https://doi.org/10.1177/0149206315626270.

Buono, A. F., & Bowditch, J. L. (1989). *The human side of mergers and acquisitions: Managing collisions between people, cultures and organizations*. (1st ed.). San Francisco, CA, US: Jossey-Bass Publishers.

Capron, L. (1999). The long-term performance of horizontal acquisitions. *Strategic Management Journal*, 20(11), 987-1018.
https://doi.org/10.1002/(SICI)1097-0266(199911)20:11<987::AID-SMJ61>3.0.CO;2-B

Cartwright, S., & Cooper, C. L. (2018). Foreword: Making mergers and acquisitions work – the socio-cultural perspective. In: J. Raitis, R. Harikkala-Laihinen, M. E. Hassett, & N. Nummela, (Eds.). *Socio-cultural integration in mergers and* *acquisitions: The Nordic approach*. Springer International Publishing AG: Switzerland.

Certo, S.T., Connelly, B. L., & Tihanyi, L. (2008). Managers and their not-so rational decisions. *Business Horizons*, 51(2), 113-119. https://doi.org/10.1016/j.bushor.2007.11.002.

Chattopadhyay, P., Glick, W. H., & Huber, G. P. (2001). Organizational actions in response to threats and opportunities. *Academy of Management Journal*, 44(5), 937-955. https://doi.org/10.2307/3069439.

Child, J., Faulkner, D., & Pitkethly, R. (2001). *The management of international acquisitions*. Oxford University Press: Oxford.

Corley, K. G., & Gioia, D. A. (2004). Identity ambiguity and change in the wake of a corporate spin-off. *Administrative Science Quarterly*, 49(2), 173-208. https://doi.org/10.2307/4131471.

Daily, C. M., Dalton, D. R., & Cannella, A. A. (2003). Corporate governance: Decades of dialogue and data. *Academy of Management Review*, 28(3), 371-382. https://doi.org/10.5465/AMR.2003.10196703.

Dukerich, J.M., Golden, B.R., & Shortell, S.M. (2002). Beauty is in the eye of the beholder: The impact of organizational identification, identity, and image on the cooperative behaviors of physicians. *Administrative Science Quarterly*, 47: 507-533. https://doi.org/10.2307/3094849.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26(2), 301-325. http://dx.doi.org/10.1086/467037.

Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadership: Top executives and their effects on organizations*. West Publishing: St Paul, MN.

Floyd, S. W., & Wooldridge, B. (1997). Middle management's strategic influence and organizational performance. *Journal of Management Studies*, 34(3), 465-485. https://doi.org/10.1111/1467-6486.00059.

Galpin, T. J., & Herndon, M. (2014). *The complete guide to mergers and acquisitions: Process tools to support M&A integration at every level.* (3rd ed.). Somerset, US: Jossey-Bass.

Gilboa, I. (2009). *Theory of decision under uncertainty*. Cambridge: Cambridge University Press.

Gill, R. (2002). Change management – Or change leadership? *Journal of Change Management*, 3(4), 307-318. https://doi.org/10.1080/714023845.

Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal*, 12(6), 433-448. https://doi.org/10.1002/smj.4250120604.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: notes on the Gioia methodology. *Organizational Research Methods*, 16(1), 15-31. https://doi.org/10.1177/1094428112452151.

Gioia, D. A., Price, K. N., Hamilton, A. L., & Thomas, J. B. (2010). Forging an identity: An insider-outsider study of processes involved in the formation of organizational identity. Administrative Science Quarterly, 55(1), 1-46. https://doi.org/10.2189/asqu.2010.55.1.1.

Glaser, B. G., & Strauss, A. L. (1967). The discovery of grounded theory. Chicago, IL: Aldine.

Gooty, J., Connelly, S., Griffith, J., & Gupta, A. (2010). Leadership, affect and emotions: A state of the science review. *The Leadership Quarterly*, 21(6), 979-1004. https://doi.org/10.1016/j.leaqua.2010.10.005.

Graebner, M. E. (2004). Momentum and serendipity: How acquired leaders create value in the integration of technology firms. *Stratetgic Management Journal*, 25(8-9), 751-77. https://doi.org/10.1002/smj.419.

Graebner, M. E., & Eisenhardt, K. M. (2004). The seller's side of the story: Acquisition as courtship and governance as syndicate in entrepreneurial firms. *Administrative Science Quarterly*, 49(3), 366-403. https://doi.org/10.2307/4131440.

Graebner, M. E., Heimeriks, K. H., Huy, Q. N., & Vaara, E. (2017). The process of postmerger integration: A review and agenda for future research. *Academy of Management Annals*, 11(1), 1-32. https://doi.org/10.5465/annals.2014.0078.

Grote, G. (2004). Uncertainty management at the core of system design. *Annual Reviews in Control*, 28(2), 267-274. https://10.1016/j.arcontrol.2004.03.001.

Grote, G. (2009). *Management of Uncertainty: Theory and Application in the Design of Systems and Organizations*. Springer-Verlag: London.

Gunkel, M., Schlaegel, C., Rossteutscher, T., & Wolff, B. (2015). The human aspect of cross-border acquisition outcomes: The role of management practices, employee emotions, and national culture. *International Business Review*, 24(3), 394-408. https://10.1016/j.ibusrev.2014.09.001.

Hambrick, D. C., & Cannella, A. A. (1993). Relative standing: A framework for understanding departures of acquired executives. *The Academy of Management Journal*, 36(4), 733-762. https://doi.org/10.5465/256757.

Haspeslagh, P. C., & Jemison, D. B. (1991). *Managing acquisitions – creating value through corporate renewal*. New York, NY: The Free Press.

Hassett, M. E., & Nummela, N. (2018). A new research agenda for managing socio-cultural integration. In J. Raitis, R. Harikkala-Laihinen, M. E. Hassett, & N. Nummela, (Eds.). *Socio-cultural integration in mergers and acquisitions: The Nordic approach* (pp. 1-16). Springer International Publishing AG: Switzerland.

Haunschild, P. R., Davis-Blake, A. & Fichman, M. (1994). Managerial overcommitment in corporate acquisition process. *Organization Science*, 5(4), 528-540. https://doi.org/10.1287/orsc.5.4.528.

Hofstede, G. (1980). Motivation, leadership and organization: Do American theories apply abroad? *Organizational Dynamics*, 9(1), 42-63. https://doi.org/10.1016/0090-2616(80)90013-3.

Jemison, D. B., & Sitkin, S. B. (1986). Corporate acquisitions: A process perspective. *Academy of Management Review*, 11(1),145-163.

Jensen, M. C. (1998). Organization theory and methodology. *Accounting Review*, 56(2), 319-338. https://doi.org/10.2139/ssrn.94036.

Knight, F. (1921). *Risk, uncertainty and profit*. Boston, NY: Houghton Mifflin Company.

Kramer, M.W. (1999). Motivation to reduce uncertainty: A reconceptualization of uncertainty reduction theory. *Management communication quarterly*, 13(2), 305-316. https://doi.org/10.1177/0893318999132007.

Krug, J., Wright, P., & Kroll, M. (2014). Top management turnover following mergers and acquisitions: Solid research to date but much to be learned. *Academy of Management Perspectives* 28(2), 147-163. https://doi.org/10.5465/amp.2011.0091.

Kvale, S. & Brinkmann, S. (2015). *InterViews: Learning the craft of qualitative research interviewing* (3rd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Langfred, C. W., & K. W. Rockmann (2016). The push and pull of autonomy: The tension between individual autonomy and organizational control in knowledge work. *Group & Organization Management*, 41 (5), 629-657. https://doi.org/10.1177/1059601116668971.

Langley, A., & Abdallah, Ch. (2011). Templates and turns in qualitative studies of strategy and management. In D. D. Bergh, & D. J. Jr. Ketchen (Eds.), *Building methodological bridges: Research methodology in strategy and management* (volume 6). Bingley, UK: Emerald Group Publishing Limited.

LaPorte, T. R., & Consolini, P. M. (1991). Working in practice but not wrong in theory: Theoretical challenges of high reliability organizations. *Journal of public administration research and theory,* 1(1), 19-47.

Larsson, R., & Finkelstein, S. (1999). Integrating strategic, organizational, and human resource perspectives on mergers and acquisitions: A case survey of synergy realization. *Organization Science*, 10(1), 1-26. http://dx.doi.org/10.1287/orsc.10.1.1.

Lawrence, P. R., & Lorsch, J. (1967). *Organization and environment*. Harvard University Press: Cambridge, MA.

Likert, R. (1961). *New patterns of management*. New York: McGraw-Hill.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lipshitz, R., & Strauss, O. (1997). Coping with uncertainty: A naturalistic decision-making analysis. *Organizational Behavior and Human Decision Processes*, 69(2), 149–163. https://doi.org/10.1006/obhd.1997.2679.

Liu, G., Shah, R., & Babakus, E. (2012). When to mass customize: The impact of environmental uncertainty. *Decision Science*, 43(5), 851-887. https://doi.org/10.1111/j.1540-5915.2012.00374.x.

Makhija, M. V., & Stewart, A. C. (2002). The effect of national context on perceptions of risk: A comparison of planned versus free-market managers. *Journal of International Business Studies*, 33(4), 737–756.

March, J. G. (1994). *A primer on decision making: How decisions happen*. The Free Press: New York.

Marks, M. L., & Mirvis, P. H. (2010). *Joining forces: Making one plus one equal three in mergers, acquisitions, and alliances*. (2nd ed.). San Francisco, CA: Jossey-Bass Publishers.

Marks, M. L., & Mirvis, P. H. (2011). A framework for the human resources role in managing culture in mergers and acquisitions. *Human Resource Management*, 50(6), 859-877. https://doi.org/10.1002/hrm.20445.

Marks, M. L., & Mirvis, P. H. (2013). A research agenda to increase merger and acquisition success. Journal of Business and Psychology, 26(2), 161-168. https://doi.org/10.1007/s10869-011-9219-4.

Meyer, C. B. (2006). Destructive dynamics of middle management intervention in postmerger processes. The Journal of Applied Behavioral Science, 42(4), 397-419. https://doi.org/10.1177/0021886306289420.

Meyer, K. E., & Lieb-Dóczy, E. (2003). Post-acquisition restructuring as evolutionary process. Journal of Management Studies, 40(2), 459-482. https://doi.org/10.1111/1467-6486.00347.

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis. Thousands Oaks, CA: Sage Publications.

Miller, K. D. (1992). A framework for integrated risk management in international business. Journal of international Business Studies, 23, 311-331. https://doi.org/10.1057/palgrave.jibs.8490270.

Monin, P., Noorderhaven, N., Vaara, E, & Kroon, D. (2013). Giving sense to and making sense of justice in postmerger integration. *Academy of Management Journal*, 56(1), 256-284. https://doi.org/10.5465/amj.2010.0727.

Mullin, B. A., & Hogg, M. A. (1998). Dimensions of subjective uncertainty in social identification and minimal intergroup discrimination. *The British Journal of Social Psychology / The British Psychological Society*, 37(3), 345–365. https://doi.org/10.1111/j.2044-8309.1998.tb01176.x.

Nowotny, H. (2016). *The cunning of uncertainty*. Polity Press: Cambridge, UK.

Nutt, P. C. (1987). Identifying and appraising how managers install strategy. *Strategic Management Journal*, 8(1), 1-14.
https://doi.org/10.1002/smj.4250080102.

Pablo, A. I. (1994). Determinants of acquisition integration level: A decision-making perspective. *Academy of Management Journal,* 37(4), 803-836. https://doi.org/10.5465/256601.

Raitis, J., Harikkala-Laihinen, R., Hassett, M., & Nummela, N. (2017). Finding positivity during a major organizational change: In search of triggers of employees' positive perceptions and feelings. In: W. J. Zerbe, C. E. J. Härtel, N. M. Ashkanasy, & L. Petitta, L. (Eds.), *Emotions and identity: Research on emotions in organizations*, (vol. 13) (pp. 3-16). Bingley, UK: Emerald Group Publishing Limited.

Reus, T. H., Lamont, B. T., & Ellis, K. M. (2016). A darker side of knowledge transfer following international acquisitions. *Strategic Management Journal*, 37(5), 932-944. https://doi.org/10.1002/smj.2373.

Sapienza, H. J., & Gupta, A. K. (1994). Impact of agency risks and task uncertainty on venture capitalist – CEO interaction. *Academy of Management Journal*, 37(6), 1618-1632.

Sarasvathy, S. D. (2001). *What makes entrepreneurs entrepreneurial?* Charlottesville, VA, USA: University of Virginia Darden School Foundation.

Savage, L. (1972). *The foundations of statistics*. New York: Courier Corporations.

Scarbrough, H., & Burrell, G. (1996). The Axeman Cometh: The changing role and knowledge of middle management. In S. Clegg, & G. Palmer, (Eds.) *The politics of management knowledge*. Thousand Oaks, CA: Sage.

Schuler, R. S., Tarique, I., & Jackson, S. E. (2004). Managing human resources in cross-border alliances. In C. L. Cooper, & S. Finkelstein (Eds.), *Advances in mergers and acquisitions*. (vol. 3) (pp.103-129). Bingley: Emerald Group Publishing Limited.

Schweiger, D. M., & Goulet, P. K. (2000). Integrating M&A: An international research review. In C. L. Cooper, & A. Gregory (Eds.), *Advances in mergers and acquisitions* (vol. 1) (pp. 61-91). Bingley: Emerald Group Publishing Limited.

Sitkin, S. B., & Pablo, A. L. (2004). The neglected importance of leadership in mergers and acquisitions. In: A. L. Pablo, & M. Javidan, M. (Eds). *Mergers and acquisitions: Creating integrative knowledge* (pp. 209-223). Malden, MA: Blackwell Publishing.

Sniazhko, S. (2019). Uncertainty in decision-making: A review of the international business literature. *Cogent Business & Management*, 6(1), https://doi.org/10.1080/23311975.2019.1650692.

Steigenberger, N. (2016). The challenge of integration: A review of the M&A integration literature. *International Journal of Management Reviews*, 19(4), 408-431. https://doi.org/10.1111/ijmr.12099.

Strauss, A. L., & Corbin, J. M. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage Publications Inc.

Teece, D., & Leih, S. (2016). Uncertainty, innovation, and dynamic capabilities: An introduction. *California Management Review*, 58(4), 5-12. https://doi.org/10.1525/cmr.2016.58.4.5.

Teerikangas, S., & Birollo, G. (2018). Leading M&As in a middle managerial role: A balancing act. In J. Raitis, R. Harikkala-Laihinen, M. E. Hassett, & N. Nummela (Eds), *Socio-cultural integration in mergers and acquisitions: The Nordic approach* (pp. 65-94). Switzerland: Palgrave Pivot.

Teerikangas, S., Véry, P., & Pisano, V. (2011). Integration managers value-capturing roles and acquisition performance. *Human Resource Management*, 50(5), 651-683. https://doi.org/10.1002/hrm.20453.

Thompson, J. D. (1967). *Organizations in action*. McGraw-Hill: New York.

Vaara, E. (2001). Role-bound actors in corporate combinations: A sociopolitical perspective on post-merger change processes. *Scandinavian Journal of Management*, 17(4), 481-509. https://doi.org/10.1016/S0956-5221(00)00002-6.

Vaara, E. (2003). Post-acquisition integration as sensemaking: Glimpses of ambiguity, confusion, hypocrisy, and politicization. *Journal of Management Studies*, 40(4), 859-894. https://doi.org/10.1111/1467-6486.00363.

Vaara, E., Tienari, J., & Björkman, I. (2003). Best practice is west practice? A sensemaking perspective on knowledge transfer in a merging organization. *Special issue in Nordic Organization Studies/ Norske Organizasjonsstudier*, 5(1), 37-58.

Vaara, E., Tienari, J., & Säntti, R. (2003). The international match: Metaphors as vehicles of social identity building in cross-border mergers. *Human Relations*, 56(4), 419-452. https://doi.org/10.1177/0018726703056004002.

Vaara, E., Tienari, J., & Laurila, J. (2006). Pulp and paper fiction: On the discursive legitimation of global industrial restructuring. *Organization Studies*, 27(6), 789-810. https://doi.org/10.1177/0170840606061071.

Vaara, E., & Tienari, J. (2011). On the narrative construction of multinational corporations: An antenarrative analysis of legitimation and resistance in cross-border merger. *Organization Science*, 22(2), 370-390. https://doi.org/10.1287/orsc.1100.0593.

Van Maanen, J. (1979). The fact of fiction in organizational ethnography. *Administrative Science Quarterly*, 24(4), 539–550. https://doi.org/10.4324/9781315241371-24.

Véry, P. (2004). *The management of mergers and acquisitions*. Chichester, England: Wiley.

Véry, P., Lubatkin, M., Calori, R., & Veiga, J. (2016). Relative standing and the performance of recently acquired European firms. *Strategic Management Journal*, 18(8), 593-614. https://doi.org/10.1002/(SICI)1097-0266(199709)18:8<593::AID-SMJ899>3.0.CO;2-I.

Véry, P., & Schweiger, D. M. (2001). The acquisition process as a learning process: Evidence from a study of critical problems and solutions in domestic and cross-border deals. *Journal of World Business*, 36(1), 11-31. https://doi.org/10.1016/S1090-9516(00)00052-3.

Victor, B., Boynton, A., & Stephens-Jahng (2000). The effective design of work under total quality management. *Organization Science*, 11(1), 102-117. https://doi.org/10.1287/orsc.11.1.102.12566.

Welch, C., Piekkari, R., Plakoyiannaki, E., & Paavilainen-Mantymaki, E. (2011). Theorising from case studies: towards a pluralist future for international business research. *Journal of International Business Studies*, 42, 740-762. https://doi.org/10.1057/jibs.2010.55.

Zaheer, A., Castañer, X., & Sounder, D. (2013). Synergy sources, target autonomy, and integration in acquisitions. *Journal of Management*, 39(3), 604-632. https://doi.org/10.1177/0149206311403152.

APPENDIX A: Types of uncertainties perceived by integration managers

Type of uncertainty	**Acquired firm integration managers**	**Buying firm integration managers**	**Both firms' integration managers**
Uncertainty about future strategy	Timing of change Future brand Customers' reaction Loyalty of supply chain actors	Future growth Customer portfolio alignment	New strategy New structure New business model New type of governance
Uncertainty about integration process	Planning of the integration Training of the integration managers Selection process of the integration managers	Tacit knowledge of the acquired firm Change implementation	Distribution of work Reaction of employees Data reliability
Uncertainty about organizational culture integration			Different decision-making styles Work practices
Uncertainty related to own position after integration	Content of a new position	Permanent role	Future position
Uncertainty about position of subordinates	Preparing subordinates for the coming change Future position of subordinates Retention of the key employees		
Uncertainty about own competence to execute integration		Lack of a specific competence Lack of a merger competence on a bigger scale	
Consequences of previously unresolved uncertainties	Lack of structure -> appointments Undefined strategy -> original intentions of the buying firm Future position -> responsibility for the integration decisions		Selection process -> trust issues
Uncertainty about own role during integration	Distribution of work among workstreams		Own role Too many roles Organization of workload

APPENDIX B: Supporting excerpts for each second-order theme

Second-Order Themes	Representative Quotes for First-Order Codes
1.Information gathering	1.1 "We had our official Christmas event in a very big hall and the presidents of two companies gave their speeches and made official announcement of the acquisition. Then special recordings about the acquisition have been made and distributed among the offices around the globe. E-mails have been following since that time informing about the deal." (Integration managers from acquired firm, interview) 1.2 "I think you can only search for the information that is available. Right? And that means you search through whatever media, that you have an access to. And that gives you so much in particular in your early phase of a merger." (Integration manager from buying firm, interview) 1.3 "I contact a necessary person and ask any additional information that I need. I contact so to speak, new leaders of new organization to get the information that I need. We have quite good cross workstream communication among the leaders of different workstreams." (Integration manager from acquired firm, interview)
2.Centralized planning	2.1 "Lots of changes…All the sourcing activities and contract price negotiations, risk responsibilities they were taken over by so called [buying frim] Group Procurement. So, basically my current position is very-very-very much narrower than I used to be doing. There are still a lot of responsibilities that [acquired firm] sourcing people need to carry on…but power, or how to say, authorization, to decide things are no more in [acquired firm] sourcing people." (Integration manager from acquired firm, interview) 2.2. "Even at the beginning there were broken promises. For the business itself, there has been much better cooperation on how the things have been done at [the acquired company] and what the good things are that new set up should take and what the weak things are that they should not take. But in my work stream, they had their set up in place which we are adopting and that is the only right way to do this." (Integration manager from acquired firm, interview) 2.3 "This is how it was communicated really strong. As I said, they have very strong business models. Of course, they told that they are looking for the best practices, but in the real life they were not. Not as the best practices. They pretty much had the plan already and then I was just a guy who had to implement this." (Integration manager from acquired firm, interview)
3.Evidence-based decision-making	3.1 "Also the way we think about outsourcing is a bit different: [acquired firm] is more focused on the final assembly and testing whereas [buying firm] complete a longer part of the chain in-house." (Integration manager from acquired firm, interview) 3.2 "I was driving the work stream here and I had a very great help from my two co-leads, work stream partners here. So, I don't think we were in such big conflicts. And the reason why we didn't run into big conflicts, we used the approach that I mentioned at the beginning, the factual approach into it." (Integration manager from buying firm, interview)

	3.3 "First, it was more or less trying to harvest the things so called quick wins. I had to convince the people about the target to see that it is not realistic. And then, of course, the outcome has been supporting and witnessing the facts that I have been stating during the merger. But at the very beginning, it was very much like pushing and trying to get savings achieve, but the reality was that no savings were hanging over as the easy once". (Integration manager from acquired firm, interview)
4.Acquisition experience and company-specific experience	4.1 "Well, both uncertainty related to work and of course uncertainty related to myself so, for my own, of course I have a good experience, I didn't worry so much. But of course, for the team, will we find good position for the people…But also, even if I decided to trust the people, but I don't know them so well, so it was very hard to be completely open. I would say, I didn't understand uncertainty a year ago, but I see it now. And I also see how much easier life is today, than it looked one year ago. When I compare it now, the feelings I have today and then I look at some old mails, I have flashbacks coming…yes, the situation was quite uncertain. It was not so stable." (Integration manager from acquired firm, interview) 4.2 "They even didn't realize at the time we were doing those discussions that the change is actually coming. Especially those people who have been for a long time with the same company, with the same people. If they have never been in the merger situation before, maybe they don't even know what it all means. So, how do you prepare a person like that and say the fact that now it is going to be completely different?" (Integration manager from acquired firm, interview) 4.3 "…I think it was a great experience. I do remember, talking about uncertainties, when I stood into this I had this very strange feeling on, 'Hm, what's it going to be about, and how to do this'…I have been reflecting for a while and though that it is going to be damn difficult. But on the other hand, I said, 'Ok, why shouldn't I be able to do this with experience that I have and forming a good team…there is always forming a good team…when we got our team in place, it became very clear to me that with this team we could also make it happen and therefore I believe in if I could get that opportunity again to work on the integration, I would definitely say yes." (Integration manager from MMO, interview)
5.Collaboration	5.1 "Of course, the acquisition is about uncertainty. So, when you set up and you find out that you are going from 12 factories to 7 factories, then of course there are uncertainties on how we are going to do that, how we are going to split them up and who is going to be in charge of that." (Integration manager from buying firm, interview) 5.2 "From the operational point of view, I think we were pretty open minded. In [acquired firm] they have very low inventories and very fast delivery focus. In [buying firm] we have very short lead time and delivery very fast to the customers. The combination of these two would be necessary. We have better payment terms, they have low lead time. If we can combine these two, then we have a win-win situation. So, it is all making out these small differences. And of course, it would be a compromise

	at the end of the day." (Integration manager from buying firm, interview) 5.3 "Planning starts when we are gathering a lot of data. We are trying to analyze the data. We are trying to make the conclusions, the right conclusions. Then we are always going to the top management saying that this is what we are recommending. Can we get an approval from it? Then we get an approval from it and then we are communicating this to the organizations. And then executing." (Integration managers from acquired firm, interview) 5.4 "You can't expect in a snap of your fingers to see the new way of working and then I change. It will take time. It will take time before we are creating a new journey together. So what are new [buying firm]-[acquired firm] common values now, habits, common whatever we want to have? It will take time." (Integration manager from acquired firm, interview) 5.5 "We have just been involved in the decision related to the suppliers' consultation where we talked about who is going to be the future supplier. There we brought people together from [acquired firm], [buying firm], and then from the other company. They were sitting together, agreeing on what suppliers would be used, and going forward. When we are in that face, I think it has been bottom up and I think people have been involved in making the decisions themselves. But now start the implementation face and now we have a new organization in place, so now it is I think as it was before…It is just a bigger organization. It has to decide on the actual implementation. So, the complexity is a little bit higher, but the decision-making process, I don't think is much different." (Integration manager from buying firm) 5.6 "I see this as not either or…sometimes it is said that we are agreeing on moving away from [the acquired firm's] legacies, but there have been a lot of good things done within these legacies, which we will have to adopt in the new landscape. And I think that this is what it means to bring the best of [the acquired firm] and combine it to the way we used to work here in [the buying firm]. To my mind this is building the common future, it is not either or." (Integration manager from buying firm, interview)
6. Adaptive decision-making	6.1 "We have uncertainties about how much effort is needed. Something went in process point of view or in performance point of view sadly. Here I mean that the people that were executing didn't perform as intended. Then I ask from myself what went wrong, where can I improve, what I didn't consider, did I reject some facts that were actually on the table, but I was blind to them or were they really unknowns." (Integration manager from acquired firm, interview) 6.2 "I would say, acceptance and respect for the uncertainty, because you know that you can't solve everything now and there will uncertainties. Two years from now we will make new decisions." (Integration manager from buying firm, interview) 6.3 "We realized early on that there might be great synergies on SAP programs. [Acquired firm] was about to launch a SAP pilot in the USA when the merger was announced. This fits well with the [buying firm] Spirit 2.0 ERP plans. A lot of effort has been put on enabling the One [buying firm] approach towards our

	customers as early as possible." (Integration managers from buying and acquired firms, Newsletter)
7.Proactive decision-making	7.1 "The supply chain work stream has also started a 'world tour' of visits to [buying firm] and [acquired firm] sites around the world to find out the ways of working between two companies. You can find more commonalities than differences in our ways of working.' (Integration manager from acquired firm, interview) 7.2 "I have advantage over the number of colleagues, because I have three or four months of experience with the merger because of the work in the work stream. Also, I instructed the facts about all the different development sides and I'm good at this myself. That gave a very broad network. So, you could get insights on what is happening in different sides. All of this gave me a lot of knowledge which was a bigger part in moving forward. That has been motivating me and helping a lot. And today my management team is a global team from [buying firm] and former [acquired firm]." (Integration manager from buying firm, interview) 7.3 "We are much more equal partners...Let's say that we have a strong position within buildings. [Acquired firm] has a strong position within marine. So, one has one knowledge and another has another knowledge. We are equal. So, we need to define that future journey together. It is not that one is right or one is wrong, we need to make most of out of it together. So, there are lot of nuances into this, so are we integrating or are we merging? There are places where we are going into [buying firm] organization and there are places where we do the best of both and then there are places where we go new." (Integration manager from MMO, interview)

Essay 3: Post-acquisition integration as a decision-making process: Individual-level sensegiving AND team-level sensemaking

Sniazhana Sniazhko, University of Vaasa

Abstract

Although the existing literature on post-acquisition integration recognizes integration managers' role in change implementation, it still positions them as managers without formal power and as mere executors of the top management's targets. Quite often integration managers and integration teams are positioned at the boundaries between top management and the rest of the merging organization where their role might include giving meaning to new strategy and structure, securing the transfer of key knowledge, and interpreting various unanticipated events that emerge during post-acquisition integration. They tend to play a very important but highly undervalued sensemaking and sensegiving role that might shape the course of the post-acquisition integration process. Nevertheless, we have a limited understanding of the sensemaking and sensegiving activities of individual integration managers and integration teams and the ways these activities unfold at both individual and team levels. The current research adopts a sensemaking perspective to reveal sequential influences affecting the individual-level and team-level activities of integration managers in the post-acquisition integration. The findings of this in-depth qualitative case study research illustrate the pattern of the integration decision-making process is primarily a bottom-up process, which encompasses the key performing role of integration managers at both the individual and team level. The article presents a diagram of integration managers' decision-making during the post-acquisition integration phase that illustrates that integration managers are involved in such sensegiving activities as idea generation, problematizing, and defining a need. Yet, the key sensemaking activities were conducted at the team level with important implications for the way post-acquisition integration decision-making processes evolved.

Keywords: Mergers and acquisitions, integration managers, individual-level, team-level, sensemaking, sensegiving, decision-making

1. Introduction

Mergers and acquisitions (M&A) have been studied from several perspectives, including investigations of their financial, strategic, behavioral, operational, and cross-cultural aspects (Raukko, 2009; Shimizu, Hitt, Vaidyanath, & Pisano, 2004). Those various perspectives have provided detailed insights into a great number of issues, but nevertheless, our understanding of M&A remains fragmented. The post-acquisition integration phase, which has been found to determine the outcome of the M&A to a significant degree (Haspeslagh & Jemison, 1991), is a good example of that fragmentation. The existing literature conceptualizes post-acquisition integration in various ways, presenting it as both a set of managerial actions designed to combine structures, systems, and cultures of two organizations (Cording, Christman, King, 2008; Pablo, 1994) and also as the final state where the activities of the combined firms are standardized (Vaara, Sarala, Stahl, & Björkman, 2012), consolidated (Heimeriks, Schijven, & Gates, 2012), or balanced in terms of standardization and autonomy (Birkinshaw, Bresman, & Håkanson, 2000). In practice, however, post-acquisition integration is a far more complex, multifaceted, and highly dynamic process (Graebner, Heimeriks, Huy, & Vaara, 2017), where managerial elements play a significant role.

Companies that perform their M&A transactions well are usually those that thoroughly plan their post-acquisition integration (Ashkenas, DeMonaco, & Francis, 1998). Big companies and companies that acquire on a regular basis generally designate a group of integration managers to run the process. In the literature, integration managers are defined as agents of change who are responsible for information sharing, monitoring managers and subordinates, and maintaining the integration timelines (Ashkenas et al. 1998; Gill, 2002; Schuler, Tarique, & Jackson, 2004). Occasionally, they are also defined as project managers (Birollo & Teerikangas, 2019; Teerikangas, Véry, Pisano, 2011). However, the work of integration managers is more challenging than that of project managers in the sense that the people they manage are not working directly for them and extra effort is therefore required to motivate the employees to work for a new organization. Moreover, integration managers must handle the various consequences of the merger syndrome; which is characterized by change or loss of identity, high levels of stress, power games, feelings of insecurity and impotence, uncertainty and mistrust (Appelbaum, Gandell, Yortis, Proper, & Jobin, 2000; Marks, 1988; Marks & Mirvis, 1985).

While the literature on M&A recognizes integration managers' role in change implementation, the existing literature has positioned them as managers without formal power and executors of the top managers' decisions. That depiction results in integration managers being perceived as decision-makers of little importance (Balogun, Gleadle, Hailey, & Willmott, 2005; Chreim & Tafaghod, 2012; Datta, 1991; Jemison & Sitkin, 1986; Steigenberger, 2016). The role of integration managers has been defined rather simplistically but they tend to play a very important sensemaking and sensegiving role during the post-acquisition integration. It is often believed that top managers are the people who experience uncertainties related to strategic and budgeting planning, the degree of autonomy in a new organization, or the effect of superiority syndrome that characterizes the diminished status of the acquired firm's culture (Dunbar, 2014; Lubatkin, Schweiger, & Weber, 1999; Mirvis & Marks, 1992). What is neglected, however, is that integration managers also face various uncertainties arising from unanticipated events during post-acquisition integration, and it is they who give meaning to the new strategy, structure, and various integration-related concepts. Beyond the role of change executor, integration managers were observed to lead and navigate change, spur the process, identify and secure the transfer of key knowledge, and manage inter-firm interfaces (Teerikangas & Birollo, 2018). In addition, integration managers can either facilitate the process (Teerikangas et al., 2011) or ruin it (Meyer, 2006; Vaara, 2003). Thus, integration managers are important but undervalued agents of change in the post-acquisition integration process who interpret and give meaning to the post-acquisition integration events.

The sensemaking undertaken by integration managers is an important part of the post-acquisition integration change, and it is thus also important to look at the activities and processes of integration managers through which that sensemaking occurs. In general, sensemaking accounts for how individuals interpret ongoing events and how those interpretations affect their responses to the events in question (Gertsen & Søderberg, 2000). Many papers on M&A integration assume that the acquiring firm's top managers steer the integration: A presumption that can be challenged by applying sensemaking as a theoretical perspective. Accordingly, several studies have revealed that post-acquisition integrations are the result of negotiations among various actors, compromise, and collective sensemaking (Steigenberger, 2016). Integration managers were found to be engaged in such activities as selling ideas, shaping the existing norms, rhetoric, and narratives serving to create specific meanings (Graebner, 2004; Monin, Noorderhaven, Vaara, & Kroon, 2013). These activities are crucial in determining whether the decisions promoted by integration managers will be followed and whether the expected changes will be executed (Monin et al., 2013). However, the current understanding of integration managers' sensegiving and sensemaking activities in the post-acquisition integration process is rather limited. To extend it, we must understand integration managers' roles as the influencers in the post-acquisition integration process, and to explore the decision-making processes and activities they engage in and through which sensegiving and sensemaking occur during post-acquisition integration (Graebner et al., 2017).

In the post-acquisition phase, integration occurs across different levels; thus, although integration managers are important actors in the post-acquisition integration process, most of the decisions are made in integration teams. Nevertheless, we lack an empirical understanding of how the link between decision-making processes and sensemaking activities at the integration-manager and integration-team level is forged. The decision-making literature suggests that decisions are shaped by a complex set of rational and irrational factors and involve multiple actors (March, 1994). A link between individual-level decision-making and organizational-level outcomes is a recognized concern and challenge (Kouamé & Langley, 2017), which has attracted researchers from various fields (e.g., Renkema, Meijerink, & Bondarouk, 2016; Stigliani & Ravasi, 2012; Buckley, Hamdani, Klotz, & Valcea, 2011; Hitt, Beamish, Jackson, & Mathieu, 2007; Kostova & Roth, 2003). Researching problems from both the individual- and organizational-level perspective is likely to provide us with deeper insights into the ways in which individual actors and organizations fit together (Lee & O'Neill, 2003; March, 1994). In the context of M&A literature, with few exceptions (e.g., Haspeslagh & Jemison, 1991; Yu, Engleman, &Van de Ven, 2005; Angwin & Meadows, 2015; Graebner et al., 2017), research has not sufficiently explored the process of post-acquisition integration decision-making and has not explained how individual actors and their interactions shape post-acquisition integration (Graebner et al., 2017). This is problematic since integration managers are key actors in deciding the issues to be prioritized and implemented during integration, and that ultimately become critical to acquisition outcomes. One of the ways in which to understand the various mechanisms through which integration managers' roles and their influence unfold during post-acquisition integration is to look at integration managers' sensemaking and sensegiving activities at both the individual- and integration-team levels and the ways in which they are interlinked.

The main objective of this paper is to address the recent calls in the literature and to develop a deeper understanding of the post-acquisition integration process. In particular, the paper explores the sensemaking and sensegiving activities of integration managers during the post-acquisition integration phase as they make decisions in teams and build the link between individual- and team-level decision-making. Although prior research provides insights on the antecedents and consequences of post-acquisition integration, little is known about the sensemaking and sensegiving activities through which these decision-making processes unfold (Graebner et al., 2017; Steigenberger, 2016; Haspeslagh & Jemison, 1991). This paper builds on that and makes two significant contributions in promoting a greater understanding of decision-making processes at the individual and team levels in post-acquisition integration (Stigliani & Ravasi, 2012). First, by applying the sensemaking perspective, this study was able to shed light on how integration managers give meaning to integration targets, on how they react to those targets, and on how they communicate the targets to others in the integrating teams. Second, this paper challenges the conventional understanding about the submissive role played by integration managers during post-acquisition integration, and also contributes to the existing literature by adding a new understanding of the integration managers' roles that reveals new ways in which they can exert influence at various levels during the post-acquisition integration process.

The remainder of the paper is organized as follows: the next section reviews the literature on M&A with a particular focus on integration managers' presence and involvement during the post-acquisition integration phase. Next, a sensemaking perspective is introduced, which provides theoretical and methodological ground for exploring individual- and team-level decision-making processes. Then the methods and case description are presented. Although several important decisions were observed, the findings focus on three exemplary decisions that integration managers made in the context of post-acquisition integration. Figure 2 depicts the pattern of sensemaking and sensegiving activities in the decision-making observed around the three most discussed decisions noted in this context. The discussion section focuses on the dynamics between individual- and team-level interlinkages, and, finally, avenues for future research are presented.

2. Integration managers and a sensemaking perspective

The post-acquisition integration phase is known as the combination and integration of the joining partners (Schuler & Jackson, 2001). At this stage, the levels at which integration takes place include the structural (Puranam, Singh, & Zollo, 2006), cultural (Vaara, Tienari, & Säntti, 2003), strategic (Jeminson & Sitkin, 1986), organizational (Barkema & Schijven, 2008; Jeminson & Sitkin, 1986), task (Birkinshaw et al., 2000) and human (Pribilla, 2002). Changes within any of those levels generate uncertainty, resistance, identity problems, or spur organizational politics, or cultural clashes (Cording et al., 2008; Graebner, 2004; Maguire & Phillips, 2008; Vaara, 2003), emphasizing a dynamic element in post-acquisition integration decision-making. Research also acknowledges the tension of ambiguity about the actual purpose of M&A, performance expectations, and timing of actions that tend to emerge at this stage (Jeminson & Sitkin, 1986). Although more recent studies have demonstrated how unfolding organizational changes create new problems and challenges (Schweizer, 2005; Vaara & Monin, 2010) and have suggested that the way in which integration managers are able to deal with these changes has an important impact on the course of integration (Monin et al., 2013), there is a need to explore how integration managers make these decisions.

One of the ways to understand how integration managers make these decisions is by adopting a sensemaking perspective, defined as, "the process through which people work to understand issues or events that are novel, ambiguous, confusing, or in some other way violate expectations" (Maitlis & Christianson, 2014: 57) and the process through which organizational actors socially construct their realities (Weick, 1995). The sensemaking perspective is a useful theoretical approach to examine the social construction of activities and decisions during post-acquisition integration because it is the nature of the post-acquisition integration process that anticipated and unanticipated issues necessitate sensemaking (Monin et al., 2013). Although the literature on sensemaking remains fragmented, scholars agree that the unforeseen nature of environmental jolts, organizational crises, threats to identity, and even planned change processes become a trigger for sensemaking (Maitlis & Christianson, 2014). These issues quite often represent the fundamental concerns in the decision-making processes among integration managers and integration teams in the post-acquisition integration process.

The top-down sensemaking process where leaders continuously engage in the management of meaning is common in the literature (Ancona, 2011; Shamir, 2007). Nevertheless, applying a sensemaking perspective to organizational behavior research permits scholars to reveal sensemaking as a process that could also be dominated by middle managers (Balogun & Johnson, 2004). It was found that middle managers were active in interpreting the meanings of events for themselves and their teams through verbal, textual, or non-verbal behaviors. Although the sensemaking process also occurred through vertical processes with leaders, a good portion of those processes took place informally and beyond the control of senior management (Balogun & Johnson, 2004; Maitlis, 2005). Accordingly, middle managers carry out the role of sensemaker and sensegiver. The sensemaking role was revealed in situations of uncertainty, when managers seek to clarify events by interpreting cues from their working environment, and give orders to make sense of what has occurred and to set further actions to address the prevailing circumstances (Brown, 2000; Maitlis, 2005; Weick, 1995). In the role of sensegivers, these managers strategically shape the sensemaking of organizational members using symbols, images, and other influence techniques (Gioia & Chittipeddi, 1991; Maitlis & Christianson, 2014). Although sensegiving is considered to be a top-down process, middle managers were observed to have their own interpretations and could actively resist efforts from leaders to exert a strategic influence (Sonenshein, 2010).

A similar understanding of the level of influence in the decision-making process has been observed in the M&A literature. The post-acquisition integration process is determined by a set of strategic and operational choices made by integration decision-makers. Quite often, senior executives and key senior advisors set objectives for the integration and have the ultimate authority over it. Nevertheless, integration managers develop strategic tasks, create a structure for them, define the issues to be prioritized, and ultimately implement them during post-acquisition integration, alongside ensuring the integration remains on course by focusing on the appropriate activities at the right time (Ashkenas & Francis, 2000). Nevertheless, it is generally accepted that senior management plays the role of sensegivers and also influences sensemaking through structural interventions that integration managers must make sense of (Monin et al., 2013). Several scholars have termed sensegiving and sensemaking in the post-acquisition integration political sensemaking (e.g., Clark & Geppert, 2011), where top management interventions depend on the power of the involved stakeholder groups (Clark, Gioia, Ketchen, & Thomas, 2010; Monin et al., 2013; Vaara, 2003).

Several studies have argued that integration managers are the sensemakers and sensegivers of the integration process, which makes them important decision-makers and key actors with their day-to-day implementation practices in the post-acquisition integration decision-making process. A number of unanticipated events might emerge either in the form of serendipitous opportunities (Graebner, 2004) or in unanticipated problems (Vaara, 2003) that require the instant involvement of integration managers to interpret the event. A related understanding was depicted by Hubbard and Purcell (2001) who identified integration managers as enactors of the post-acquisition integration process who communicate the integration to the recipients. In that way, post-acquisition integration was perceived as a process of negotiations where integration managers are often either key facilitators or unconstructive intervenors of the integration (Meyer, 2006). Notwithstanding these contributions, little is known about the integration managers' sensemaking and sensegiving activities during the post-acquisition integration process, which is a serious concern because integration managers work at the boundaries between top management and the rest of the integrating organization and their role involves continuously responding to the dual demands of sensegiving and sensemaking.

Although the post-acquisition integration process has largely been investigated from a process view of organizations (Monin et al., 2013; Schweiger, 2005), which examines the dynamic aspect of the integration and, in particular, how and why things emerge, develop and grow, or terminate over time (Langley, Smallman, Tsoukas, & Van de Ven, 2013), this paper adopts a sensemaking perspective to explore not only a dynamic aspect of the integration but also the way it evolves across levels. This view is complementary to the existing process view of organizations and is particularly relevant to understanding organizational phenomena that are complex, uncertain, and ambiguous (Graebner, 2004; Vaara, 2003). In the context of this perspective, individual-level decision-making is defined as processes and activities taking place at the individual manager level and might include activities of integration managers such as framing or managerial cognition (Kaplan, 2008; Maitland and Sammartino, 2015). Team-level decision-making is defined as collective processes and activities that take place above the individual level but below the organizational level. These might include activities of teams such as idea-selling or interactions (Dutton, Ashford, O'Neill, & Lawrence, 2001; Rouleau, 2005).

Because the work of integration managers is a set of various complex decisions made in teams, there is a strong need to understand how these decisions evolve from individual to team levels. To date, the post-acquisition integration process, defined as a dynamic change process, has been looked upon as the interaction between the M&A context and managerial interventions (Steigenberger, 2016). In this process, integration managers are responsible for the implementation of the targets drawn up by their senior managers. The outcome of this process depends greatly on the integration managers' interpretation of what is required and upon the actions taken as a result of those interpretations (Balogun, 2003). Moreover, integration managers' final actions determine the extent to which the original plans of the senior managers are delivered. In other words, the degree of change in the execution of the original plan is created bottom-up (Balogun, 2003). One of the problems that remain is that we have a little understanding of the dynamic element in this process and, particularly how various levels interact, how integration managers work with an integration team, and how that dynamic unfolds further within the integrating organization. Therefore, this paper adopts a sensemaking perspective to trace the mechanisms through which the cycles of influence between individual integration managers and teams of integration managers co-evolve.

This leads to the formulation of the following key research questions: How do integration managers make sense of, and give sense to, their post-acquisition integration decisions? How do the dynamics of these sensemaking and sensegiving activities unfold at both individual and team levels?

3. Research design

3.1. Method

This paper is based on a single in-depth case study that explores integration managers' real-time decisions during the post-acquisition integration phase in a merger of two Nordic multinational corporations (MNCs). The unique contribution of this research method lies in its ability to uncover a phenomenon in its natural environment and associated contextual processes, including its evolvement over time (Corley & Gioia, 2004; Langley, 1999; Langley & Abdallah, 2011). The chosen method also allows a researcher to more rigorously reveal multi-level relationships that are contextually bound (Kouamé & Langley, 2017). This paper uses a qualitative case study based on multiple data sources: 20 semi-structured interviews with 18 integration managers collected during the preset time of the integration in 2015–2016, 25 issues (224 pages) of the merging companies' weekly newsletters on M&A[6], one webcast video (46 min) from the meeting where the official announcement of the acquisition took place, one visit to the acquired company's manufacturing premises during the integration, and all publicly available documentation and newspaper posts were used to enhance the author's understanding of the integration process. This extended range of data sources is recognized as an advantage in this study because it allows tracking and mapping decisions as they evolved across various levels in the combined organization.

This research integrates an inductive approach as outlined by Corley and Gioia (2004) to systematically identify, conceptualize, and present the findings. While acknowledging some of the criticism that has been leveled at the Gioia methodology in terms of falling into the trap of losing sight of the big picture and courting "cognitive stickiness", describing phenomena at rather a high level of aggregation (Langley and Abdallah, 2011), this study applies Gioia methodology to organize the structure, to systematically reduce the data and to construct the coding. Furthermore, feedback on emerging interpretations was gathered from insiders and members of the merger management team in particular. The main reason for this methodological choice is the nature of the research itself that focuses on concept (vs. construct) development, that is, "a more general, less well-

[6]The newsletters were the main sources of the merger update to the internal employees of the merging companies. Each issue included the message from the top management, weekly update on the integration process from a particular department, Q&A session and interviews with the integration managers responsible for the integration of particular departments. The content of the newsletters was very in-depth and informative with the very specific examples of the decisions being made.

specified notion capturing qualities that describe a phenomenon" and which therefore, cannot be strongly rooted in what is already known (Gioia, Corley, & Hamilton, 2012: 16).

Affirming the value of contextualization to theorizing, this paper adopts *interpretive sensemaking* as one of the alternative methods of theorizing (Lincoln & Guba, 1985; Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mantymaki, 2011). Aligned with the integrated methods[7], this research assumes that the interviewed integration managers construct their realities about the integration process and are 'knowledgeable agents' who can explain their thoughts, intentions, and actions. To discover new concepts and to give voice to the interviewed integration managers, no prior constructs of scientific understanding of the post-acquisition integration phase or M&A concepts were imposed on the managers (e.g., identity politics, value-capturing roles). In addition, particular attention was paid to ways in which integration managers understood the context of integration and how they talked about their understanding to capture their personal accounts of what they perceived (Van Maanen, 1979).

3.2. Case background

The case in focus in this study is a cross-border integration of two Nordic MNCs in the of industrial goods and services industry that took place in 2014. The buying firm was approximately twice the size of the acquired firm in terms of turnover and number of employees. As defined by the executives of the integrating companies, the integration was not motivated by cost-cutting, but was intended to deliver synergy and enhance the complementarity of two strong players in the industry. However, as with many mergers, some integration managers saw it as an acquisition. This merger, officially defined as a friendly acquisition, serves as a revelatory case as it involved a series of complex decisions characterized by ambiguous and uncertain outcomes.

The post-acquisition integration of these two firms was a planned, well-organized, and staged process involving the establishment of an official integration team. Within that team, the integration managers were expected to lead the integration process, to inform staff about the new strategic direction, and to communicate decisions across the combined organization. At the core of the integration team were 11 workstreams focused on transition within each functional area: sales, procurement, supply chain and productivity, R&D, product portfolio, branding,

[7]Although Gioia methodology is widely used in studies associated with the positivistic paradigm, this study follows an interpretivist tradition, which asserts that knowledge is produced as an act of human interpretation (Van Maanen, 1979).

marketing, finance, HR, IT, and communication. For each of these workstreams executive directors of the integrating firms assigned managers from both integrating firms. Integration managers were informed about the acquisition, interviewed, and appointed to their positions two months before the official announcement of the acquisition. The integration managers worked in small groups of two or three to identify the best solutions within each area. The progress of workstreams was supervised by the corporate merger management office (MMO) that consisted of one head manager and four managers providing execution support in the areas of communication, product management, finance, and strategy.

This particular integration is a suitable case for this research because it offered an opportunity to capture the voices of integration managers in real-time during the integration process. Furthermore, the nature of the case made it possible to capture the voices of individual integration managers reporting their perceptions of events and their interactions with other managers both individually and in groups, making it an ideal setting for analyzing the dynamics of the decision-making process.

3.3. Data sources

The author conducted two rounds of interviews. The first round of interviews with integration managers began in November 2015, a year after the case firms' official announcement relating to the M&A. Interviews took place over the following seven months. The second round of interviews was conducted with the merger management team in June 2016. The integration managers defined that time as the official ending of the execution of the key integration decisions. The two interview rounds were separated by a one-month interval, which allowed the researcher to reflect on the respondents' input and reports. The interviews ranged from 45 to 90 min. The researcher created a record of all the interviews through live recording, simultaneous note-taking, and post-interview note-taking. A story-telling approach was to shape the qualitative semi-structured interviews (Czarniawska, 2004), the main idea of which was to allow the interviewees to talk about their experiences, without too much guidance from the interviewer, so that they could reveal the aspects of decision-making that were most important to them.

The first set of interview questions elicited background information from the integration managers, such as their current position, job roles and responsibilities, work history, and experience. Then, a couple of broader questions were asked, "What kind of integration experience has it been so far?" and, "What do you think about the integration decision-making processes that you have been involved in?" These questions prompted integration managers to reflect on the aspects of decisions they did not plan for and that emerged throughout their decision-making. Moreover, the author had compiled a set of more specific questions dealing with post-acquisition integration, such as, "What kind of decisions have you been making during the integration", "How do you work in your workstream team?", and "How would you describe your function in this integration?" The integration managers' answers to these questions provided insights into the organizational sensemaking and sensegiving processes at both the individual and team levels.

Respondents' self-reported data might contain some bias, including the most commonly observed form, self-serving bias, where managers take credit for their own success and blame failure on external factors and uncontrollable events (Bettman & Weitz, 1983). Documentation in the form of the companies' newsletters and notes of discussions with the merger management team served as important sources for triangulation and understanding the background to events mentioned by integration managers during interviews (Miles & Huberman, 1994). Nevertheless, the purpose of triangulation was to capture multiple voices through data and personal accounts during integration managers' decision-making rather than to justify the truth across responses (Welch & Piekkari, 2017).

3.4. Data analysis

Data analysis was organized into three main steps. The first step involved a careful review of the interviews of integration managers to identify decisions they were making during post-acquisition integration (the results indicating the number of decisions varied between 4 and 9 per integration manager). The characteristics of decisions were identified and coded into three exemplary main decisions: building strategic rationale, defining the desired level of integration, and appointing line managers (extract coding of these decisions is provided in Appendix A). Although the existing research shows that many decisions are made during the post-acquisition integration phase, in the context of this research three types of decisions are reflected upon as exemplary forms. These key decisions are described chronologically as they appeared in the interviewees' narratives, which is also convenient for illustration purposes. However, it is worth mentioning that integration managers worked on making those decisions sequentially as well as simultaneously. The beginning of the decision is considered when integration managers have been informed about their responsibility to make a particular decision. The decision is considered complete when the executives of the integrating firms approve the integration managers' recommendations on a particular decision.

Analyzing the listed decisions, the author traced the integration managers' activities while making those decisions. Among the listed activities, the characteristics of activities conducted individually or in teams (i.e., in workstreams and with the MMO) were identified and coded. All this data reduction made it possible to create comprehensive categories (Corley & Gioia, 2004). The reduction of the concepts into categories was based on the interpretivist perspective, meaning that integration managers considered the recognized decisions and decision-making activities to be of real importance (Gehman, Glaser, Eisenhardt, Gioia, Langley, & Corley, 2017). The output of the first step of the analysis was the set of activities conducted at the individual and team levels.

The second step required tracing the integration managers' sensegiving and sensemaking activities in their decision-making at the individual and team levels and coding the data accordingly. Figure 1 summarizes the coding structure. In particular, two main types of sensegiving were identified that existing literature terms sensebreaking and sense specification (Monin et al., 2013). Sensebreaking is defined as a breakdown of established rules and norms on the ways in which decisions are made (Mantere, Schildt, & Sillince, 2012; Monin et al., 2013). The analysis revealed, in contrast to the established understanding of integration managers as idea followers, that integration managers took on the role of idea generators and problematizers in the context of this study. Another important part of sensegiving was sense specification, where integration managers gave sense to the problems and solutions that they addressed through their decision-making. In the context of this paper, that took the form of defining a need.

Furthermore, three different reactions of integration managers were interpreted by the author as key forms of sensemaking: acceptance, resistance, and distancing. Here the definition of acceptance is aligned with the definitions in the existing research where acceptance is viewed as an active or passive acceptance of the established or offered senses about integration (Giessner, Viki, Otten, Terry, & Täuber, 2006; Monin et al., 2013). Acceptance in this study took different forms: implementing, reasoned agreement, applying, and communicating. Along with acceptance, there was a range of tensions among integration managers that they resolved through collaboration, which was also distinguished by the author as a form of resistance to accepting the established understanding of integration. Lastly, a number of integration managers neither accepted nor resisted the existing meanings of integration decision-making and preferred to distance themselves from the established sense of integration. This distancing manifested as questioning.

In the final step of data analysis, the dynamics of sensegiving and sensemaking were analyzed to develop an understanding of how these activities unfold in post-acquisition integration decision-making. The author first focused on the general flow of decision-making activities revealed in the three key decision-making processes. Then, this flow of decision-making activities was evaluated at the individual and team levels to identify key dynamics in this process. This facilitated developing a more general model of individual- and team-level interaction based on the data (Langley & Tsoukas, 2010) to understand these dynamics in the post-acquisition integration process more generally. This model revealed the dialogical dynamics of sensegiving and sensemaking activities across individual and team levels.

Exemplary Excerpts	Selected Evidence	1st Order Concepts	2nd Order Themes	Aggregate Dimensions
"It was really good that we had this factual base, done in the beginning by ourselves…And the experts in those areas were really bringing up their expertise in their areas and very good proposals were coming" (Integration manager from acquired firm, interview)	Bring cognitive order to disparate targets and meaning to disorderly tasks	Idea-generating	Sensebreaking	Individual-level activities: Sense-giving
"The individuals are, sort of, working in conditions where they don't know if they have a job, they don't know what the job is, they don't know who their manager is, they don't know what the strategy of the company is and still you are supposed to make recommendations and decisions for the entire entity" (Integration manager from acquired firm, interview)	Problematizing the existing norms of working and the lack of guidance	Problematizing		
"[Buying firm] is a big company with 22,000 employees and we are a small company with only 1600 employees. [Buying firm] has many more resources in the HR area. I should say also that our target was to change our HR information system. So, we have been already looking for a new one and it was decided that we will go forward." (Integration manager from acquired firm, interview)	Identifying and specifying the needs; Prioritizing needs	Defining a need	Sense specification	
"Still a little unclear how [buying firm] setting is working, but we are learning every day. I don't see any big issues there, but they are implementing strong models in our places. They are conducting a change at [buying firm] also at the moment. So, they are changing their work also. So we see that we are not the only one who is learning, they are also." (Integration manager from acquired firm, interview)	Reasoned agreement; Understanding the need to make a decision	Implementing	Acceptance	Team-level activities: Sense-making
"If I were buying a company, maybe I would do it the same. I don't blame them. I understand it as it is. When you are buying you can decide. They have their models in operation and production and they have fixed that more than in 50 factories." (Integration manager from acquired firm, interview)	Supporting the decision when reasoned justification is provided	Reasoned agreement		
"I don't think we were involved in such big conflicts [refers to best of both]. And the reason we didn't run into big conflicts, we used a factual approach into it" (Integration manager from buying firm, interview)	Acceptance of decision-making norms	Applying		
"I think the MMO was not there really to make decisions, it was more to help the management team perhaps in the whole organization through the workstreams to manage and guide the merger forward, to solve problems and block out whatever happens" (Integration manager from MMO, interview)	Report on the progress of decision-making	Communicating		
"This is quite typical also and the question is, 'How should the messages be conveyed to the organization so that we could understand what we are trying to do? What are the basics?' Because always we select other practices that we used to have, then somebody has to change. And typically, people are not so willing to change. And the question is how to make this work both ways?" (Integration manager from acquired firm, interview)	Acknowledging contradictory meanings	Collaboration	Resistance	
"[Buying firm] has a history and they had their hard times economically. They have created their world which they stick to. There was one big management meeting and we said, 'You need to change,' and they were like, 'What?!' It has just been a nightmare" (Integration manager from acquired firm, interview)	Raising questions about the core meaning of decision-making	Questioning	Distancing	

Fig. 1. Extract coding of sensemaking and sensegiving at the individual and team levels

4. Findings

This section covers integration managers' sensemaking and sensegiving activities observed in their three exemplary decisions: building a strategic rationale, defining the desired level of integration, and appointing line managers. First, the author briefly describes the decisions and then emphasizes integration managers' sensegiving activities at the individual level and sensemaking activities at the team level in these decisions. Appendix B summarizes integration managers' sensegiving and sensemaking activities across different levels. The enactment of those decision-making activities across different levels and the ways in which the influence of the integration managers manifested in these decisions is elaborated on in the discussion section.

4.1. Decision-making: Building a strategic rationale

During this decision, conceptualized as the overarching strategic rationale, integration managers were making decisions to formulate the integration strategy. Although the executives of the integrating firms defined strategic targets for the integration, the content of the strategy was still too abstract to conduct systematic planning of the integration. The executives of the integrating firms stated, a key reason for the merger was value creation through reciprocity rather than dominance. The merger was expected to be a means to combine competitive advantage to become market leaders. This aim led executives to focus on the balance of power between the two firms and discussions about ensuring the merged firms created value together through combined resources. The decision-making process on integration strategy formation was focused on the new structure, new product portfolios, new operations, branding, IT services, HR alignment, performance standards, and new facilities.

When they were introduced to the aims outlined above, integration managers from both firms were giving sense to and making sense of the set strategic targets, the detailed content of which was not defined, and in a situation where the practical meaning was unclear. In terms of sensegiving, the most important concern for the integration managers initially was to think about the structure and to plan operational decision-making in a new organization. Interpretation of the targets began at the individual level of integration managers and their sensegiving was focused on two activities: defining a problem and identifying a need.

First, as illustrated above, the main goal of the executives was to create value through equality, although their vision for change was not sufficiently detailed, which was a great concern to the integration managers. Integration managers problematized the situation as caused by the absence of both a concrete basis for the integration and specific guidance on how to deal with practical decisions concerning the integration. The immediate practical concern dealt with brand recognition and customers' reaction to a change to a brand. Integration managers were concerned about which products should be sold and under what brand, "There are areas where you have to select the branding. Are we changing just the color and the logo of the organization or what? What continues and what not?" (Integration manager from acquired firm, interview). Second, the presented strategy was also interpreted by integration managers as a moment to rethink and change old and inefficient ways of operation in companies, and, thus to identify a need for change. Although the newly set strategic target of the firms was to become a market leader, it was impossible to achieve with the old norms of operation such as, for example, old IT systems or an aging production and manufacturing chain.

These decisions triggered various responses from integration managers at the team level and sensemaking activities that were expressed through three different forms of acceptance: reasoned agreement, implementing, and communicating. First, the decision on the branding of the companies' products proceeded almost unnoticed through workstreams by integration managers from the buying firm, but it was a notable decision from the perspective of integration managers from the acquired firm because most of their previous work on product development was considered wasted given that certain product lines were discontinued. To proceed, integration managers from the acquired firm had to follow successive decisions and agree with the integration managers from the buying firm in terms of the new product portfolio with a condition that the profitability of each existing product line from both companies would be thoroughly evaluated. Second, the decision on a need to update old systems in the organizations led to a common understanding and acceptance of the changes that were implemented through mutual agreement. The integration managers in the merger management team understood the complexity of the process and interpreted their key role as communicators and preservers of a bigger picture among various workstreams.

4.2. Decision-making: Desired level of integration

During the decision-making process relating to the second important decision, integration managers focused on defining the desired level of integration. The instructions that integration managers received from the executives of the integrating firms was to integrate 'the best of both' firms, which signaled to the integration managers from the acquired firm that this is a merger of equals. Integration managers from the buying firm explored the business processes that should be imported from the acquired firm. Since "there is absolutely no such thing as a merger of equals, one is always the big kid on the block" (Galpin & Herndon, 2014: 72), integration managers from the acquired firm were working out what the deal really meant with respect to control, governance, and other guiding parameters. This decision mainly consisted of determination of the efforts required to fully integrate two firms' processes, people, and systems. Abstract definition of 'the best of both' coming from the executives exacerbated integration managers' decision-making and it was socio-politically challenging. Both buying and acquired firms had a strong organizational identification and culture, and thus, concerns over a loss of autonomy were of significant importance for integration managers from both firms.

Interpretation started at the individual level of integration managers in both firms and they interpreted the integration of 'the best of both' in various ways. In these conditions, the sensegiving of integration managers was revealed through two different activities: problematizing and idea-generating. Integration managers from the acquired firm were concerned that their partners from the buying firm were not changing as they expected them to as a result of integration and, even more so, they were concerned that integration managers from the buying firm would force them to change according to the buying firm's standards. That approach to integration was particularly visible in the productivity work streams, where a more centralized operational structure of the buying firm was promoted in the decentralized acquired firm. In this latter instance, those integration managers who did not perceive the lack of clarification of 'the best of both' as a problem, interpreted the vagueness of the statement as an opportunity to generate new ideas and promote their own interests. In particular, a number of integration managers insisted that 'the best' should be defined only through statistical calculations and quantifiable fact. They believed a large volume of data could be one of the most reliable sources to identify excellence in the operations of one firm compared to another.

The sensemaking activities took place at the team level and, in particular, in the workstream and merger management teams. Different teams had different interpretations and reactions to the type of integration that top executives defined as 'best of both'. Integration managers from the acquired firm alerted their colleagues in the workstreams to the adverse consequences of the undefined 'best of both' practice. In particular, some integration managers from the acquired firm denounced the behavior of the buying firm, which they interpreted as domination.

The attitude led some integration managers from the acquired firm to resist establishing norms and required integration managers from the buying firm to explain why certain changes were not actioned on the buying firm side. Other integration managers from the acquired firm who interpreted the buying firm's actions as domineering started to question the essential meaning of the integration and whether that was a solid basis for effective decision-making. There were integration managers who accepted the domination of the buying firm and justified the stance of the firm as the only reasonable alternative. Lastly, those integration managers who interpreted the 'best of both' as an opportunity to promote their own ideas, offered a solution of a factual identification of the best practices and intensively applied those principles across various workstreams. In terms of the merger management team, their primary behavior was to communicate the same message across various workstream teams and ensure consistent communication of the big picture of integration, so that the pace of the integration process remained intensive.

4.3. Decision-making: Appointment of line managers

The third decision related to the identification and appointment of line managers in a newly merged organization. Implementation and integration of a new product portfolio, a new IT system, or any other change in post-acquisition integration is a very large and complex project where a specific person should be accountable for the project's success to avoid delays or overwhelming confusions. Therefore, integration managers indicated their lack of trust in line managers appointed to run the re-structured functions in the newly integrated firm, "...still the execution of all those decisions will lie with the line organization and then who are the individuals leading the line organization? How much do you know about those people? How do you learn about who are actually the key influencers? Do the managers want to keep the key influencers to themselves, are they openly discussing the talent that they have, are they willing to share that with the others in order to build something greater?" (Integration manager from acquired firm, interview).

The sensegiving activities took place at the individual level. Although the core message of the integration coming from top management emphasized that it was all about people and about keeping the right people's competencies, integration managers, especially those from the acquired firm, were skeptical. In particular, individual integration managers problematized the logic that the top management used to appoint new line managers. Their key concern was that although two experienced integration managers from both firms and some experts were building a new organization, they were not nominated for a function management position, and instead, a third person who was not involved in the integration decision-making was selected for the position.

The following reaction of the integration team and to their sensemaking process was unequivocal. Because function managers were not directly involved in the integration decision-making processes, integration managers perceived them as less experienced in the context of the current merger. Consequently, when the newly appointed function managers were asked for guidance by their subordinates, their decisions did not seem confident, which undermined trust in the group, particularly on the part of the integration managers. Nevertheless, integration managers from MMO communicated that they were selecting the best candidates for function management positions with the big picture in mind, which they believed the integration managers from work streams did not have. As a result, integration managers had to either transfer from their current position into a new area or leave the organization.

5. Discussion

5.1. Sensegiving and sensemaking activities of integration managers across levels

Integration managers' decision-making activities supporting each decision were inductively derived. Those activities showed how integration managers at both the individual and team levels got involved in the development and execution of the post-acquisition integration decisions. Figure 2 maps integration managers' activities across individual, workstream, and merger management team levels. The figure shows how sensemaking and sensegiving in relation to the integration process are constructed through a set of activities at the individual and team levels.

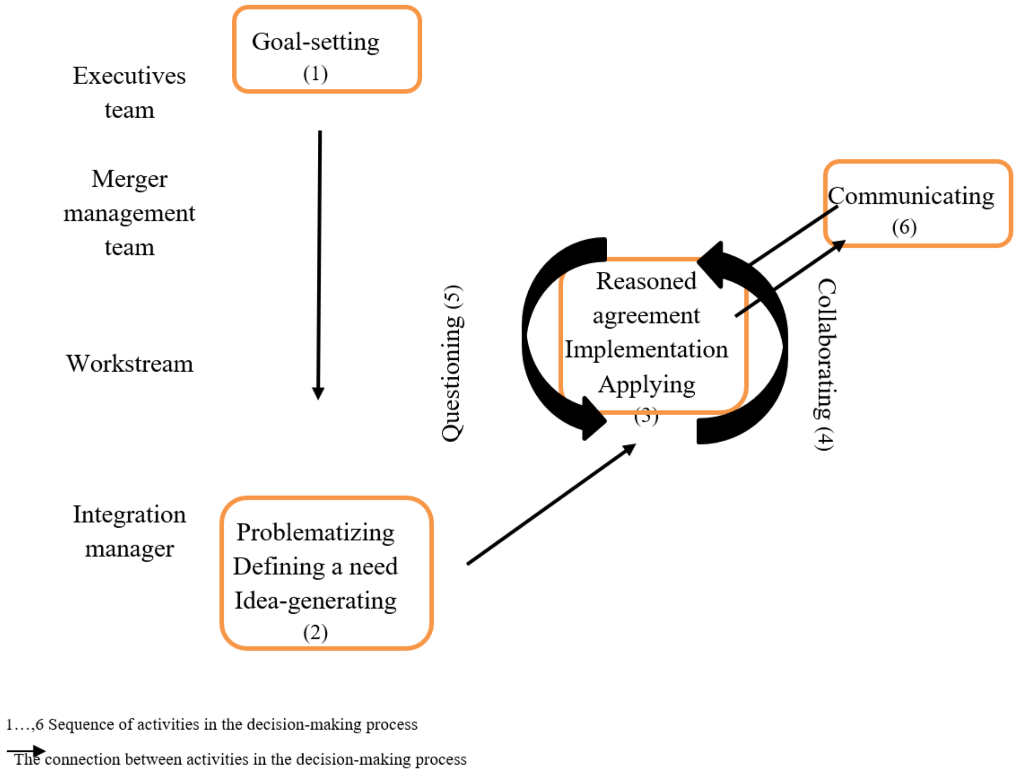

Fig. 2. Decision-making activities of integration managers across levels

Figure 2 illustrates how different decision-making activities are interconnected and ultimately form a pattern of decision-making. This figure indicates a sequential flow of activities in the pattern and their directions. Although goal-setting (1) started with the executives, the pattern of decision-making was primarily a bottom-up process, which depicts the key performance role of integration managers either at the individual or team level. At the individual level, integration managers gave sense to the set goals through such activities as problematizing, defining a need or idea generation (2). Those activities received various reactions at the workstream level (3). When individual integration managers' interpretations were accepted at the workstream level, sensemaking took place through such activities as reasoned agreement, implementation, or applying the agreed terms into practice. However, those activities were also challenged through collaboration (4) among integration managers that sought to identify why certain decisions were not progressed in workstreams as agreed or questioning (5) the decisions' alignment with the set goals. Lastly, the sensemaking activity of the integration managers from the merger management team was an ongoing process of communicating (6) and preserving the big picture of the integration.

5.2. Integration managers' influence in the post-acquisition integration process

To provide an answer to the research question and to understand how integration managers' influence unfolds during post-acquisition integration, this paper makes two key observations. First, in contrast to the existing understanding of the role of integration managers as mere executors of the executives' targets during post-acquisition integration, this study observed that the role of integration managers is more dynamic, in that they can shape the post-acquisition integration process through problematization and idea generation or shape the shared meanings and calls for actions at the team level. These observations are elaborated on in the following two sections.

5.2.1. The dynamics of integration managers' sensegiving and sensemaking

Even in the context of a well-planned and organized post-acquisition integration process, as was the one explored in this paper, there are several social-political concerns that are perceived differently by integration managers, making them one of the most important actors, in that it is they who largely determine how the post-acquisition integration process evolves. This study elucidates how individual integration managers give sense to top managers' integration targets, something that contributes to the construction of the norms in unfolding post-acquisition integration decision-making. In particular, individual integration managers' sensegiving activities revealed in the form of sensebreaking and sense specification steer the course of post-acquisition integration. The findings of this study illustrate the significant role of sensebreaking as a means to challenge and problematize the norms set by the top management and to promote new meanings. The importance of sensebreaking has been highlighted in other fields of science (e.g., Maitlis & Lawrence, 2007; Maitland & Sammartino, 2015) and, with a few exceptions (e.g., Monin et al., 2013), has been largely under-researched in an M&A context. The findings of this research can help clarify the way in which integration managers shape the course of the post-acquisition integration decision-making process through problematization and idea generation. In the context of this paper, integration managers are comparable to strong voices on the issues that need to be prioritized or addressed in a new way. Their skeptical assessment of the set integration targets and introduction of a factual approach to address the concerns of the *best of both* approach to integration steered the course of that integration. In addition to sensebreaking, sense specification activities of the integration managers were triggered by a need to give more specific meaning to the strategic content in the integration. In most cases, individual integration managers' sense specification contributed to the shared meanings and calls for action at the team level.

With regard to sensemaking activities, they were conducted at the team level and were crucial in determining whether the meanings of individual sensegiving were eventually enacted. This study reveals the various ways in which acceptance of the decisions, resistance to them, and also distancing from making decisions shaped the post-acquisition integration process. It is a common fact that people react differently based on their organizational identity (Marmenout, 2010). It is also known that these varieties in managerial reactions blur across the organizational boundaries over time (Monin et al., 2013). Nevertheless, this study indicates that organizational sensemaking activities in the post-acquisition integration phase are the most intense at the workstream level, where individual integration managers from both firms first meet to plan and make collective decisions.

Moreover, the observed variety of sensemaking forms at the workstream level identified in this study are characterized as more ambivalent than straightforward cases of agreement or resistance. In many cases, integration managers from both firms tended to accept the decision-making norms articulated by top management. In addition, a number of integration managers expressed reasoned agreement about the issue at hand, but with an understanding of the underlining norms of the decision. That was the case with integration managers from the acquired firm who were disappointed about the disproportionate influence of the buying firm in some workstreams' decisions, which reminded them more of a takeover than a merger. This example illustrates the importance of understanding not only integration managers' perception of the decision at hand but also their reaction and interpretation of the norms underlying the decision. Over time, integration managers resisted the decisions. Frequently, integration managers from the acquired firm voiced their concerns about decisions in disagreements, which eventually required more collaboration between the merging parties. In addition to open resistance, integration managers distanced themselves from the decision-making process by questioning the rationale of some decisions made by the merger management team or top management. In fact, such distancing became most apparent when the line manager positions in the new organization were announced, which did not seem to follow the integration managers' expectations.

All the observations on integration managers' sensegiving and sensemaking processes highlighted in the current study enhance the research on the dynamics of post-acquisition integration. Existing studies on cultural dynamics, identity, and justice formation illustrate a strong correlation between managerial actions and organizational responses in post-acquisition integration (Clark et al., 2010; Monin et al., 2013; Vaara & Tienari, 2011). This study expands existing knowledge by exploring how post-acquisition decisions evolve with important implications for the course of post-acquisition integration. Accordingly, this research contributes to M&A research and addresses a pronounced need in the existing research to better understand the post-acquisition reality (Graebner et al., 2017; Haspeslagh & Jemison, 1991) by providing a detailed visualization of the very essence of decision-making processes during post-acquisition integration.

5.2.2. Bridging micro and meso levels in the post-acquisition integration

The second key observation of this study contributes to bridging the gap between the micro and meso domains in the M&A literature and illustrates that all individuals in the integration hierarchy, from integration managers to workstreams to the merger management team, make decisions that shape the post-acquisition integration process. The applied sensemaking perspective facilitated exploring sensegiving and sensemaking activities at the individual and team level during decision-making processes and how they are interlinked. The individual level comprises the individual integration managers with their individual perceptions and interpretations of the decisions at hand that permit them to be problematizers, idea generators, or definers of needs. The team level represents the organizational norms, the realm of relations derived from prior interactions of individuals, which allows the team to have more of an authoritative role through accepting, challenging, or distancing itself from the decisions at hand.

The M&A literature has traditionally focused on how the top management determines the choice of integration approach at the outset of the merger (Haspeslagh & Jemison, 1991, Pablo, 1994), and has to a large extent neglected how the integration approach is implemented (Haspeslagh & Jemison, 1991). The literature is silent on the role of integration managers and the ways they make decisions during the post-acquisition integration phase. The current research has illustrated how integration managers intervene in the post-acquisition integration process by drawing on insights from the literature on decision-making processes across different levels. The study illustrates that although the top management sets the strategic targets, integration managers operationalize the detailed content of those targets. Integration managers give sense to and make sense of the strategy, leverage information, and facilitate the post-acquisition integration process. The findings of this paper illustrate that, in addition to integration managers' sensegiving and sensemaking, they also influence the post-acquisition integration process upward by accepting, resisting, or distancing. Those stances influence both the interpretation and execution of the post-acquisition integration process. The research findings can be related to the current discussions in M&A literature about the determinants of acquisition success and value generation (e.g., Angwin, 2007). The detailed, multi-level picture of post-acquisition integration decision-making activity illustrates the significance of the role of integration managers, which has so far largely been neglected.

6. Conclusion

For firms and integration managers in practice, this study sketches the post-acquisition integration decision-making process as it evolves through its sensegiving and sensemaking activities. In addition, this research illustrates the range of various integration managers' reactions to the decisions in the post-acquisition integration process, which show that the effect of sensemaking activities will depend on sensegiving by individual integration managers. In so doing, the current research reveals the level of power of integration managers in the post-acquisition integration process, which should alert practitioners to the need to be very clear about the individual characteristics of integration managers selected to coordinate the post-acquisition integration process.

The insights generated by the present study also have some implications for further research. Comparative research studies of a longitudinal nature carried out at multiple levels of analysis are necessary to identify and conceptualize the empirical support for the positive effect of the identified decision-making activities on the acquisition outcomes. Furthermore, comparative analysis of different types of acquisitions (e.g., a hostile vs. a friendly takeover) could produce well-founded concepts encompassing integration managers' activities in the integration processes.

To sum up, this study aimed to identify the ways integration managers shape the post-acquisition integration process. As the M&A literature indicates, post-acquisition integration is one of the most important phases of any M&A, making integration managers with their perceptions and reactions equally important. The post-acquisition integration process is characterized as a very complex, dynamic process that can involve a range of uncertainties, ambiguity, trust, and justice issues. This paper showed how decisions in the post-acquisition integration process evolve and how integration managers shape the process through their sensegiving and sensemaking activities.

References

Ancona, D. (2011). Sensemaking: Framing and acting in the unknown. In S. Snook, N. Nohria, & R. Khurana (Eds.), *The handbook for teaching leadership* (pp. 3-19). Thousand Oaks, CA: Sage Publications.

Angwin, D.N. (2007). Mergers and acquisitions: A primer. In D. Angwin (Eds.), *Mergers and acquisitions* (pp. 383-408). Malden, MA: Blackwell Publishing.

Angwin, D. N., & Meadows, M. (2015). New integration strategies for post-acquisition management. *Long Range Planning*, 48(4), 235-251. https://doi.org/10.1016/j.lrp.2014.04.001.

Appelbaum, S. H., Gandell, J., Yortis, H., Proper S., & Jobin, F. (2000). Anatomy of a merger: Behavior of organizational factors and processes throughout the pre-during- post-stages (part 1). *Management Decision*, 38(9), 649–662. https://doi.org/10.1108/00251740010357267.

Ashkenas, R. N., DeMonaco, L. J., & Francis, S. C. (1998). Making the deal real: How GE capital integrates acquisitions. *Harvard Business Review*, 76(1), 165-178.

Ashkenas, R. N., & Francis, S. (2000) Integration managers: Special leaders for special times. *Harvard Business Review*, Nov-Dec, 109.

Balogun, J. (2003). From blaming the middle to harnessing its potential: Creating change intermediaries. *British Journal of Management*, 14(1), 69-83. https://doi.org/10.1111/1467-8551.00266.

Balogun,J., Gleadle, P., Hailey, V. H., & Willmott, H. (2005). Managing change across boundaries: Boundary-shaking practices. *British Journal of Management*, 16(4), 261-278. https://doi.org/10.1111/j.1467-8551.2005.00463.x.

Balogun,J. & Johnson, G. (2004). Organizational restructuring and middle manager sensemaking. *Academy of Management Journal*, 47(4), 523-549. https://doi.org/10.2307/20159600.

Barkema, H. G., & Schijven, M. (2008). Toward unlocking the full potential of acquisitions: The role of organizational restructuring. *Academy of Management Journal*, 51(4), 696-722. https://doi.org/10.5465/AMR.2008.33665204.

Bettman, J.R., & Weitz, B.A. (1983). Attributions in the board room: Causal reasoning in corporate annual reports. *Administrative Science Quarterly*, 28(2), 165-183.

Birkinshaw, J., Bresman, H., & Håkanson, L. (2000). Managing the post-acquisition integration process: How the human integration and task integration processes interact to foster value creation. *Journal of Management Studies*, 37(3), 395-425. https://doi.org/10.1111/1467-6486.00186.

Birollo, G., & Teerikangas, S. (2019). Integration projects as relational spaces: A closer look at acquired managers' strategic role recovery in cross-border acquisitions. *International Journal of Project Management*, 37(8), 1003-1016. https://doi.org/10.1016/j.ijproman.2019.09.002.

Brown, A. D. (2000). Making sense of inquiry sensemaking. *Journal of Management Studies*, 37(1), 45-75. https://doi.org/10.1111/1467-6486.00172.

Buckley, M. R., Hamdani, M. R., Klotz, A. C., & Valcea, S. (2011). Into the great wide open: Bridging the micro-macro divide in the organizational science. *Research Methodology in Strategy and Management*, 6, 31-68. https://doi.org/10.1108/S1479-8387(2011)0000006006.

Chreim, S., & Tafaghod, M. (2012). Contradiction and sensemaking in acquisition integration. *The Journal of Applied Behavioral Science*, 48(1), 5-32. https://doi.org/10.1177/0021886311403311.

Czarniawska, B. (2004). *Narratives in social science research*. London: Sage.

Clark, E., & Geppert, M. (2011). Subsidiary integration as identity construction and institution building: A policital sensemaking approach. *Journal of Management Studies*, 48(2), 395-416. https://doi.org/10.1111/j.1467-6486.2010.00963.x.

Clark, S. M., Gioia, D. A., Ketchen, D. J., & Thomas, J. B. (2010). Transitional identity as a facilitator of organizational identity change during a merger. *Administrative Science Quarterly*, 55(3), 397-438. https://doi.org/10.2189/asqu.2010.55.3.397.

Cording, M., Christman, P., & King, D. R. (2008). Reducing causal ambiguity in acquisition integration: Intermediate goals as mediators of integration decisions and acquisition performance. *Academy of Management Journal*, 51(4), 744-767. https://doi.org/10.5465/AMR.2008.33665279.

Corley, K. G., & Gioia, D. A. (2004). Identity ambiguity and change in the wake of a corporate spin-off. *Administrative Science Quarterly*, 49(2), 173-208. https://doi.org/10.2307/4131471.

Datta, D. K. (1991). Organizational fit and acquisition performance: Effects of post-acquisition integration. *Strategic Management Journal*, 12(4), 281-297. https://doi.org/10.1002/smj.4250120404.

Dunbar, J. K. (2014). The leaders who make M&A work. *Harvard Business Review*, September Issue.

Dutton, J. E., Ashford, S. J., O'Neill, R. M., & Lawrence, K. A. (2001). Moves that matter: Issue selling and organizational change. *Academy of Management Journal*, 44(4), 716-736. https://doi.org/10.5465/3069412.

Galpin, T.J., & Herndon, M. (2014). *The complete guide to mergers and acquisitions: Process tools to support M&A integration at every level.* (3rd ed.). Somerset, US: Jossey-Bass.

Gehman, J., Glaser, V. L., Eisenhardt, K. M., Gioia, D., Langley, A., & Corley, K. G. (2017). Finding theory-method fit: A comparison of three qualitative approaches to theory building. *Journal of Management Inquiry,* 27(3), 284-300. https://doi.org/10.1177/1056492617706029.

Gertsen, M. C., & Søderberg, A.-M. (2000). Tales of trial and triumph a narratological perspective on international acquisition. In C. Cooper, & A. Gregory (Eds.), *Advances in mergers and acquisitions* (volume 1) (pp. 239-272). Amsterdam: JAI Press.

Giessner, S. R., Viki, G. T., Otten, S., Terry, D. J., & Täuber, S. (2006). The challenge of merging: Merger patterns, premerger status, and merger support. *Personlaity and Social Psychology Bulletin*, 32(3), 339-352. https://doi.org/10.1177/0146167205282151.

Gill, R. (2002). Change management – Or change leadership? *Journal of Change Management*, 3(4), 307-318. https://doi.org/10.1080/714023845.

Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal*, 12(6), 433-448. https://doi.org/10.1002/smj.4250120604.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: notes on the Gioia methodology. *Organizational Research Methods*, 16(1), 15-31. https://doi.org/10.1177/1094428112452151.

Graebner, M. E. (2004). Momentum and serendipity: How acquired leaders create value in the integration of technology firms. *Stratetgic Management Journal*, 25(8-9), 751-77. https://doi.org/10.1002/smj.419.

Graebner, M. E., Heimeriks, K. H., Huy, Q. N., & Vaara, E. (2017). The process of postmerger integration: A review and agenda for future research. *Academy of Management Annals*, 11(1), 1-32. https://doi.org/10.5465/annals.2014.0078.

Haspeslagh, P. C., & Jemison, D. B. (1991). *Managing acquisitions – creating value through corporate renewal*. New York, NY: The Free Press.

Heimeriks, K. H., Schijven, M., & Gates, S. (2012). Manifestations of higher-order routines: The underlying mechanisms of deliberate learning in the context of post-acquisition integration. *Academy of Management Journal*, 55(3), 703-726. https://doi.org/10.5465/amj.2009.0572.

Hitt, M. A., Beamish, P. W., Jackson, S. E., & Mathieu, J.E. (2007). Building theoretical and empirical bridges across levels: Multilevel research in management. *Academy of Management Journal,* 50(6), 1385-1399. https://doi.org/10.5465/amj.2007.28166219.

Hubbard, N., & Purcell, J. (2001). Managing employee expectations during acquisitions. *Human Resource Management Journal*, 11(2), 17-33. https://doi.org/10.1111/j.1748-8583.2001.tb00036.x.

Jemison, D. B., & Sitkin, S. B. (1986). Corporate acquisitions: A process perspective. *Academy of Management Review*, 11(1),145-163.

Kaplan (2008). Framing contests: Strategy making under uncertainty. *Organizational Science*, 19(5), 729-752. https://doi.org/10.1287/orsc.1070.0340.

Kostova, T., & Roth, K. (2003). Social capital in multinational corporations and a micro-macro model of its formation. *Academy of Management Review*, 28(2), 297-317. https://doi.org/10.2307/30040714.

Kouamé, A., & Langley, A. (2017). Relating microprocesses to macro-outcomes in qualitative strategy process and practice research. *Strategic Management Journal*, 39(3), 559-581. https://doi.org/10.1002/smj.2726.

Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691-710.

Langley, A., & Abdallah, Ch. (2011). Templates and turns in qualitative studies of strategy and management. In D. D. Bergh, & D. J. Jr. Ketchen (Eds.), *Building methodological bridges: Research methodology in strategy and management* (volume 6). Bingley, UK: Emerald Group Publishing Limited.

Langley, A., Smallman, C., Tsoukas, H., & Van de Ven, A. H. (2013). Process studies of change in organization and management: Unveiling temporality, activity, and flow. *Academy of Management Journal*, 56(1), 1-13. https://doi.org/10.5465/amj.2013.4001.

Langley, A., & Tsoukas, H. (2010). Introducing perspectives on process organization studies. In T. Hernes, & S. Mailtlis (Eds.) *Process, sensemaking, and organizing* (pp. 1-26). Oxford, U.K.: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199594566.003.0001.

Lee, P. M., & O'Neill, H. M. (2003). Ownership structures and R&D investments of US and Japanese firms: Agency and stewardship perspectives. *Academy of Management Journal*, 46(2), 212-225. https://doi.org/10.5465/30040615.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lubatkin, M., Schweiger, D., & Weber, Y. (1999). Top management turnover in related M&A's: An additional test of the theory of relative standing. *Journal of Management*, 25(1), 55-73. https://doi.org/10.1016/S0149-2063(99)80003-8.

Maguire, S., & Phillips, N. (2008). "Citibankers" at Citigroup: A study of the loss of institutional trust after a merger. *Journal of Management Studies*, 45(2), 372-401. https://doi.org/10.1111/j.1467-6486.2007.00760.x.

Maitland, E., & Sammartino, A. (2015). Managerial cognition and internationalization. *Journal of International Business Studies*, 46, 733-760. https://doi.org/10.1057/jibs.2015.9.

Maitlis, S. (2005). The social processes of organizational sensemaking. *Academy of Management Journal*, 48(1), 21-49.

Maitlis, S., & Christianson, M. (2014). Sensemaking in organizations: taking stock and moving forward. *The Academy of Management Annals*, 8(1), 57-125. https://doi.org/10.1080/19416520.2014.873177.

Maitlis, S., & Lawrence, T. B. (2007). Triggers and enablers of sensegiving in organizations. *Academy of Management Journal*, 50(1), 57-84. https://doi.org/10.5465/amj.2007.24160971.

Mantere, S., Schildt, H. A., & Sillince, J. A. A. (2012). Reversal of strategic change. *Academy of Management Journal*, 55(1), 172-196. https://doi.org/10.5465/amj.2008.0045.

March, J. G. (1994). *A primer on decision making: How decisions happen*. New York: The Free Press.

Marks, M. L. (1988). The merger syndrome: The human side of corporate combinations. *Journal of Buyouts and Acquisitions*, January/February: 18-23.

Marks, M. L., & Mirvis, P. H. (1985). Merger syndrome: Stress and uncertainty. *Mergers and Acquisitions,* 20(2), 50-55.

Marmenout, K. (2010). Employee sensemaking in mergers: How deal characteristics shape employee attitudes. *Journal of Applied Behavioral Science*, 46(3), 329-359. https://doi.org/10.1177/0021886310371373.

Meyer, C. B. (2006). Destructive dynamics of middle management intervention in postmerger processes. The Journal of Applied Behavioral Science, 42(4), 397-419. https://doi.org/10.1177/0021886306289420.

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis. Thousands Oaks, CA: Sage Publications.

Mirvis, P. H., & Marks, M. L. (1992). Managing the merger. Englewood Cliffs, NJ: Prentice Hall.

Monin, P., Noorderhaven, N., Vaara, E, & Kroon, D. (2013). Giving sense to and making sense of justice in postmerger integration. *Academy of Management Journal*, 56(1), 256-284. https://doi.org/10.5465/amj.2010.0727.

Pablo, A. L. (1994). Determinants of acquisition integration level: A decision-making perspective. *Academy of Management Journal*, 37(4), 803-836. https://doi.org/10.2307/256601.

Pribilla, P. H. (2002). Personnel and cultural integration. In G. Picot, (Eds.), *Handbook of international mergers and acquisitions. Preparation, implementation and integration* (pp. 309-341). New York: Palgrave MacMillan.

Puranam, P., Singh, H., & Zollo, M. (2006). Organizing for innovation: Managing the coordination-autonomy dilemma in technology acquisitions. *Academy of Management Journal*, 49(2), 263 - 280. https://doi.org/10.5465/AMJ.2006.20786062.

Raukko, M. (2009). Organizational commitment during organizational changes – A longitudinal case study on acquired key employees. *Baltic Journal of Management,* 4(3), 331-352. https://doi.org/10.1108/17465260910991028.

Renkema, M., Meijerink, J., & Bondarouk, T. (2016). Advancing multilevel thinking and methods in HRM research. *Journal of Organizational Effectiveness: People and Performance*, 3(2), 204-218. https://doi.org/10.1108/JOEPP-03-2016-0027.

Rouleau, L. (2005). Micro-practices of strategic sensemaking and sensegiving: How middle managers interpret and sell change every day. *Journal of Management Studies*, 42(7), 1413-1441. https://doi.org/10.1111/j.1467-6486.2005.00549.x.

Schuler, R. S., Tarique, I., & Jackson, S. E. (2004). Managing human resources in cross-border alliances. In C. L. Cooper, & S. Finkelstein (Eds.), *Advances in* *mergers and acquisitions*. (vol. 3) (pp.103-129). Bingley: Emerald Group Publishing Limited.

Schuler, R. S., & Jackson, S. E. (2001). HR issues and activities in mergers and acquisitions. *European Management Journal*, 19(3), 239-253. https://doi.org/10.1016/S0263-2373(01)00021-4.

Schweiger, L. (2005). Organizational integration of acquired biotechnology companies into pharmaceutical companies: The need for a hybrid approach. *Academy of Management Journal*, 48(6), 1051-1074. https://doi.org/10.5465/AMJ.2005.19573109.

Shamir, B. (2007). Strategic leadership as management of meanings. In R. Hooijberg, J. G. J. Hunt, J. Antonakis, K. B. Boal, & N. Lane (Eds.), *Being there even when you are not (monographs in leadership and management)* (vol. 4) (pp. 105-125). Emerald Group Publishing Limited.

Shimizu, K., Hitt, M. A., Vaidyanath, D., & Pisano, V. (2004). Theoretical foundations of cross-border mergers and acquisitions: A review of current research and recommendations for the future. *Journal of International Management*, 10(3), 307-353. https://doi.org/10.1016/j.intman.2004.05.005.

Sonenshein, S. (2010). We're changing or are we? Untangling the role of progressive, regressive, and stability narratives during strategic change implementation. *Academy of Management Journal*, 53(3), 477-512. https://doi.org/10.5465/AMJ.2010.51467638.

Steigenberger, N. (2016). The challenge of integration: A review of the M&A integration literature. International Journal of Management Reviews, 19(4), 408-431. https://doi.org/10.1111/ijmr.12099.

Stigliani, I., & Ravasi, D. (2012). Organizing thoughts and connecting brains: Material practices and the transition from individual to group-level prospective sensemaking. Academy of Management Journal, 55(5), 1232-1259. https://doi.org/10.5465/amj.2010.0890.

Teerikangas, S., & Birollo, G. (2018). Leading M&As in a middle managerial role: A balancing act. In J. Raitis, R. Harikkala-Laihinen, M. E. Hassett, & N. Nummela (Eds), Socio-cultural integration in mergers and acquisitions: The Nordic approach (pp. 65-94). Switzerland: Palgrave Pivot.

Teerikangas, S., Véry, P., & Pisano, V. (2011). Integration managers value-capturing roles and acquisition performance. Human Resource Management, 50(5), 651-683. https://doi.org/10.1002/hrm.20453.

Vaara, E. (2003). Post-acquisition integration as sensemaking: Glimpses of ambiguity, confusion, hypocrisy, and politicization. Journal of Management Studies, 40(4), 859-894. https://doi.org/10.1111/1467-6486.00363.

Vaara, E., & Monin, P. (2010). A recursive perspective on discursive legitimation and organizational action in mergers and acquisitions. Organizational Science, 21(1), 3-22. https://doi.org/10.1287/orsc.1080.0394.

Vaara, E., & Tienari, J. (2011). On the narrative construction of MNCs: An antenarrative analysis of legitimation and resistance in a cross-border merger. Organization Science, 22(2), 370-390. https://doi.org/10.1287/orsc.1100.0593.

Vaara, E., Sarala, R., Stahl, G. K., & Björkman, I. (2012). The impact of organizational and national cultural differences on social conflict and knowledge transfer in international acquisitions. Journal of Management Studies, 49(1), 1-27. https://doi.org/10.1111/j.1467-6486.2010.00975.x.

Vaara, E., Tienari, J., & Säntti, R. (2003) The international match: Metaphors as vehicles of social identity-building in cross-border mergers. Human Relations, 56(4), 419-451. https://doi.org/10.1177/00187267030560040002.

Van Maanen, J. (1979). The fact of fiction in organizational ethnography. Administrative Science Quarterly, 24(4), 539–550. https://doi.org/10.4324/9781315241371-24.

Weick, K. E. (1995). Sensemaking in organizations. Thousand Oaks, CA: Sage.

Welch, C., Piekkari, R., Plakoyiannaki, E., & Paavilainen-Mantymaki, E. (2011). Theorising from case studies: towards a pluralist future for international business research. Journal of International Business Studies, 42, 740-762. https://doi.org/10.1057/jibs.2010.55.

Welch, C., & Piekkari, R. (2017). How should we (not) judge the 'quality' of qualitative research? A reassessment of current evaluative criteria in International Business. Journal of World Business, 52(5), 714-725. https://doi.org/10.1016/j.jwb.2017.05.007.

Yu, J.., Engleman, R. M., & Van de Ven, A. H. (2005). The integration journey: An attention-based view of the merger and acquisition integration process. Organization Studies, 26(10), 1501-1528. https://doi.org/10.1177/0170840605057071.

Appendix A. Extract coding of decisions

Selected Evidence	1st Order Concepts	2nd Order Themes	Aggregate Dimensions
“You might also see that we need to cut things, but then you have to think what would be the right time to do these things…So, I think, missing the overall strategy of the company may be very difficult for us to make some of the decisions” (Integration manager from acquired firm, interview)	Strategy building decisions	Strategic rationale	Key decisions
“They [integration managers from buying firm] pretend to listen to, but then they do it differently… They are listening, but then they are also acting and making their own plans done” (Integration manager from acquired firm, interview)	Relative dominance	Desired level of integration	
“As we are always saying in the merger situations, we want to take the best parts of both sides. And then it was confusing to [the acquired firm] people, ‘What is a good thing that [the acquiring firm] wants to take from [the acquired firm]?’ Because, it is obvious that as companies we have been quite different” (Integration manager from acquired firm, interview).	‘Best of both’		
“Now the discussion is how to allocate certain tasks of the merger management office to the line organization” (Integration manager from acquired firm, interview)	Line managers	Appointment of line managers	

Appendix B. Sensegiving and sensemaking activities of integration managers across various levels

Level	Sensegiving	*Example*	Sensemaking	*Example*
Decision-making: Building strategic rationale				
Integration Manager	Sensebreaking: lack of concrete strategic basis hindered decision-making	**Problematizing**: "Customers are used to buying [the acquired firm's] products. The questions are: Will [the acquired firm's] products continue in the future? Are we losing business because customers are no longer buying [the acquired company's] products? Anyhow, we change to [the acquiring firm's] products" (Integration manager from acquired firm, interview)		
	Sense specification: identifying the needs of changing old ways of doing things	**Defining a need**: "[The acquired firm] was exactly in the position when you need to take the lead from hundreds of millions to almost billions of euros...Some mindsets were like, 'hey, we have been doing this so far, and why should we change because things are working?' For me, at least, some of the structures that we had in the company...hold us back from growing. And now when we became part of [buying firm], I was relying at least on the fact, that now we are a part of a much bigger global entity, most of these things could be sorted out through structures and tools that going to come through [buying firm]" (Integration manager from acquired firm, interview)		

Workstream			Acceptance: Most integration managers accepted the fact of change execution when reasons are justified	**Reasoned agreement**: "At least in the portfolio stream, I think we tried to analyze the portfolio from the very beginning in quite a deep manner to understand where do we make the biggest difference and then by dividing the portfolio in three, we were able to say that this is the most important revenue-generating area for the company and there we do have overlapping products, but these are the products are bringing the most money for the company" (Integration manager from acquired firm, interview)
			Acceptance: Understanding the need to make a change in the organization	**Implementing**: "When we acquired [acquired firm], they were already planning to replace their old ERP system with SCP, which [buying firm] has been running for many years. We wanted to adopt SIP plans on the [buying firm] side. They have development tools that were used in [acquired firm], which have been adopted here and this will be a new platform also in [buying firm]."
MMO			Acceptance: Understanding the complexity of the process, and supporting it through a big picture	**Communicating**. "I think one of the ways to control was to have these merger principles and also visualization of what we are looking into and what is the future. I remember we had a slide where we had two competing companies left, then we had two collaborating companies, and then we had one company. It was this step. And I think just having the illustrations like to communicate, that helped a lot for the whole organization that we have something to hold on to and we could say, 'Ok, this is where we are now and this is the part, even if this is a very high level'" (Integration manager from MMO, interview)

Decision-making: Desired level of integration				
Integration Manager	Sensebreaking: giving multipolar sense to 'best of both' practice	**Problematizing:** "This is not an integration of equals, because they are not changing so much" (Integration manager from acquired firm, interview) **Problematizing**: "When you are acquired by [the acquiring company], there are things that are mandatory, things that we just do in [the acquiring company], and that is not up for discussion. And then if you ask a person from [the acquired company], they feel that quite a number of elements has been just pushed down from the top of the head by [the acquiring company]" (Integration manager from acquired firm, interview) **Idea generation:** "I decided to gather data and feedback from every R&D center around the world and communicate it (Integration manager from acquired firm, interview)		
Workstream			Resistance. Integration managers required an explanation of why the buying firm was not changing.	**Collaboration**. "There was a very clear message from the beginning that this is not the cost-cutting merger. I think even until today we have some people who are still wondering" (Integration manager from acquired firm, interview)

			Distancing. Integration managers questioned the meaning of integration.	**Questioning**. “Basically, it was not learning from each other it was just like, ‘Here is the model, take it!’...As I said, they have very strong business models. Of course, they told us that they are looking for best practice, but in real life, they were not. Not the best practice. They pretty much had the plan already and then I was just a guy who had to implement that” (Integration manager from acquired firm, interview)
			Acceptance. Many integration managers accepted the *best of both* concept, but found it hard to implement.	**Reasoned agreement:** “I don’t blame them. I understand it as it is. Of course, when you are buying you can decide how to approach different things. They have their models in operation and production and they have fixed that in more than 50 factories. Of course, this is very critical for them to have similar management all over the place because if all the factories are different, then how can they really be managed?” (Integration manager from acquired firm, interview) **Applying:** “So, we started with face-to-face meetings...Also we were in different workshops where we extended our input into the fact based, not to the conclusions, but to the fact based. And then deliberately on the basis of size, we also included other specialists or other persons who could help us create the fact based approach” (Integration manager from buying firm, interview)

MMT			Acceptance. Many integration managers accepted the need to continue integration even when the situation was unclear	**Communicating: "**One thing is to say it, but another to have strong words, you must also act upon that. I heard a lot of people that said that 'When we took over [acquired firm], [buying firm] people would say that it was there where we were 10 years ago with the systems, culture, and the way of working'—maybe not the culture, but the systems that they had and maturity—...then of course, if that's the case and we believe that we are 10 years ahead of them with systems and so on, then it kind of felt very natural that this is not the best of both. Maybe it is more the best of [buying firm]. But you always come up with questions about what is best. Until today we have run the cultural test and one of the questions is actually 'have we managed to take the best of both?' Here I think that most people, especially the [acquired firm] guys, they are saying 'No, we don't see that'" (Integration manager from MMO, interview)
Decision-making: Appointment of line managers				
Integration manager	Sensebreaking: Integration managers were concerned about the function management appointment.	**Problematizing**: "In many of the cases we end up having two very good people for one position that will be available in the new organization. If you have two really good HR directors and then you choose a third one out of the blue very talented as well, no doubt...But then those people who have been working for the company for a long, long time, who have huge engagements within [acquired firm]. Still, some of them ... are		

		resources that we absolutely want to keep within the company, and then, with them, not mitigating any of these uncertainties was a huge waste from the company's side. I still can't get why it was done in this way" (Integration manager from acquired firm, interview)		
Workstream			Distancing. Integration managers experienced a lack of trust in the appointment process.	**Questioning**: "When you seek a decision from someone new to leading an organization, they don't necessarily feel comfortable making the decisions, there may be a lack of trust between them and the people who are actually merging the team" (Integration manager from acquired firm, interview)
MMT			Acceptance. Most integration managers were comfortable with understanding that some integration managers in workstreams will leave the firm.	**Communicating**: "That was clearly mentioned from the start, that all integration managers should in principle free up the time 100% so that they can concentrate on the merger. And also, it was clearly stated that getting the lead or co-lead positions in workstreams didn't mean that they will get the positions where they are now" (Integration manager from MMO, interview)