



Integration team members' approaches to uncertainty management in M&A

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ABSTRACT

Mergers and acquisitions (M&A) are associated with various uncertainties. Often, large companies designate integration team members to organize post-acquisition integration. However, little is known about what integration team members do in the post-acquisition integration process. This study examines how integration team members deal with uncertainties in post-acquisition integration, specifically how they manage tensions that require different and conflicting approaches. The research 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 three main findings. First, among various uncertainty reduction, coping and balancing approaches observed in this study, the balancing approach emerged as a new method to face uncertainty. The second finding illustrates that the choice among various uncertainty management methods and their approaches is a dynamic process, in which integration team members from both buying and acquired firms are actively involved. Lastly, the study identifies that integration team members use collaboration as the way to address tensions in uncertainty management.

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 an integration manager 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, as well as coordinating the work of those involved in the integration activities” (Teerikangas et al., 2011, p. 653). In large deals, the integration manager tends to lead “the temporary integration organization consisting of integration teams with members from both acquiring and acquired parties” (Teerikangas et al., 2011, p. 653). The tasks of these integration teams are hierarchically placed two to four levels below the acquiring CEO, depending on the size of an organization (Angwin & Paroutis, 2009). They “may or may not be coordinated by an

integration manager supervising the entire integration project” (Teerikangas & Birollo, 2018, p. 66). Still, these managers “bear the responsibility of the integration tasks and are referred to as integration team members” (Teerikangas & Birollo, 2018, p. 66). This paper explores the activities of integration team members. Although the existing literature tends to define both integration managers and integration team members as middle managers (e.g., Kroon & Reif, 2021; Teerikangas & Birollo, 2018), the term middle managers does not really fit the case company in this paper because appointed integration team members were managers at different organizational levels.

Integration team members are certainly key actors in deciding the issues to be prioritized and implemented during integration, and that ultimately becomes critical to acquisition outcomes. In turn, a number of scholars identify integration team members as “change intermediaries” who lead the post-acquisition integration (Balogun, 2003; Bryant & Stensaker, 2011; Rouleau, 2005). Being placed between controller and controlled (Harding, Lee, & Ford, 2014), integration team members are also portrayed as drivers and experiencers of change (Teerikangas & Birollo, 2018). Their in-between position of both drivers and recipients of change engages integration team members in balancing emotions, building trust, interpreting, and making sense of change (Huy, 2002; Monin, Noorderhaven, Vaara, & Kroon, 2013). Furthermore, one could also argue that integration team members from the acquired side have been studied more than integration team members from the buying side

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(Balle, 2008; Meyer, 2006; Schriber, 2012; Solstad & Petterson, 2020; Teerikangas, 2012). There are fewer studies that look at both acquired and buying firm integration team members (Chreim & Tafaghod, 2012; Moilanen, 2016).

Only a handful of empirical studies explore the role of integration team members (Ashkenas et al., 1998; Ashkenas & Francis, 2000; Teerikangas & Birolo, 2018; Teerikangas et al., 2011; Véry, 2004). Despite the practical significance of integration team members, many companies do not provide their integration team members with any formal training (Galpin & Herndon, 2014). The work of integration team members is largely unsupervised in the traditional sense, and they are expected to show initiative and make independent judgments (Ashkenas & Francis, 2000). Although top management may view integration team members as simply process coordinators or project managers, they can and sometimes do play a far more pivotal role. The challenging context they work in is plagued by merger syndrome, high emotions, stress, and uncertainty, among other factors (Marks & Mirvis, 2010). Consequently, integration team members face uncertainty around various decisions but are simultaneously surrounded by people who are also facing uncertainty. Integration team members' 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 team members 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). Notwithstanding the studies by Haspeslagh and Jemison (1991), Ashkenas et al. (1998), Ashkenas and Francis (2000), Risberg (2003), 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 team members (Jemison & Sitkin, 1986; Vaara, 2003).

The aim of this research is twofold. First, the article examines the post-acquisition integration process with a focus on how integration team members from both buying and acquired firms perceive and manage uncertainty. Second, the study explores how managers make decisions amidst conflicting demands for coping with and reducing uncertainty. The current state of theoretical and empirical research reduces our understanding about post-acquisition integration as a controllable process. Hence, there is a need for theory and research to accommodate the complex and dynamic nature of uncertainty and uncertainty management methods in the post-acquisition integration.

By exploring two Nordic organizations in a single case study, this paper contributes to the M&A literature in three main ways. First, our findings from 18 integration team members, representing the buying and the acquired firms, enhance our existing understanding about the important role of integration team members in the way they manage uncertainty in the post-acquisition integration process. Although existing studies differentiate approaches used by buying and acquired integration team members (Chreim & Tafaghod, 2012; Moilanen, 2016; Vaara, 2003), our study illustrates that there is no differentiation between uncertainty management approaches used by these managers. This observation shows that all integration team members in the integration hierarchy, from individual integration team members in the buying and acquired firm to integration teams, make decisions that shape the post-acquisition integration process. Second, the study reveals that the uncertainty management process in the post-acquisition integration is more dynamic than has been previously perceived. In the light of a wide spectrum of uncertainty management approaches identified in our study as well as their dynamic interchange, this research challenges the traditional understanding of post-acquisition integration as a controllable process (notwithstanding, Clark, Gioia, Ketchen, & Thomas, 2010; Monin et al., 2013; Schweizer, 2005; Vaara & Tienari, 2011). Third, the collaboration between integration team members of both

buying and acquired firms as the way to address tensions in uncertainty management was found to be crucial for success. By exploring the concept of collaboration in the post-acquisition integration, this study brings new insights into the process of M&A (Thanos, Angwin, Bauer, & Teerikangas, 2019), illustrating that there is a need for considerations to shift from a traditional execution of the top-down post-acquisition integration plans toward dialogue with the key players in this process.

2. Literature review

2.1. Uncertainties and uncertainty management 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 M&A. 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).

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, Zagelmeyer, & Kustatscher, 2011). The combination of these anxieties and ambiguities may affect perceptions and judgments, 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, Ivancevich, & Power, 1987).

Integration managers as well as integration team members are also 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 an uncertainty about the definition of their role in influencing the content of the strategy and the integration process (Ashkenas & Francis, 2000; Haspeslagh & Jemison, 1991), uncertainty about whether they can preserve their regular job after integration, or diminished power (Ashkenas et al., 1998), as well as uncertainty about the existing organizational meaning to clear the way for change (Mantere, Schildt, & Sillince, 2012). 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 experience uncertainty related to perceived justice (Monin et al., 2013). As a result, they will lack the 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, integration managers, and integration team

members (Jemison & Sitkin, 1986; Vaara, 2003).

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.

In the light of the above, the first research question of this study is as follows:

RQ1. How do integration team members of buying and acquired firms manage uncertainty in the post-acquisition integration process?

2.2. Managing tensions in uncertainty management in post-acquisition integration

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).

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 interdependency and autonomy that are defined as broader characteristics of integration mode and as different types of influence (Hapeslagh & Jemison, 1991). Managers from the integration team apply different approaches to manage uncertainty. When reducing uncertainty, autonomy remains with the buying firm's

decision-makers who maximize their control in the way their plans are implemented. Integration team members representing the buying firm tend to use approaches related to uncertainty reduction and establishment of interdependency. Coping with uncertainty, on the other hand, is characterized by maximum control and sufficient autonomy of the acquired firm's managers. Hence, integration team members representing the acquired firm use approaches related to uncertainty coping and distribution of autonomy. These approaches may include the acceleration of the interaction with the buyer and the identification of the opportunities for unexpected resource recognition (Graebner, 2004). Tensions often occur during the 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).

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 (Bijlsma-Frankema, 2004; Shrivastava, 1986). 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 commitment and trust-based rationality (Bijlsma-Frankema, 2004; Larsson & Lubatkin, 2001; Lubatkin, Calori, Véry, & Veiga, 1998; Puranam, Singh, & Zollo, 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 team members' uncertainty management methods in the post-acquisition integration.

For this reason, the second research question addressed by this study is as follows:

RQ2. How do integration team members of buying and acquired firms manage the conflicting demands of coping with uncertainty and reducing uncertainty in the post-acquisition integration process?

3. Methods

3.1. Research design

This study is a single in-depth case study on integration team members' 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, exploring the work of integration team members in the real time when they were still either going through the integration or had just recently finished it, allowed the researcher to grasp how integration team members experienced uncertainties as they unfolded and to record what was real to them at the time of decision-making (Corley & Gioia, 2004; Gioia & Chittipeddi, 1991; Gioia, Price, Hamilton, & Thomas, 2010;

Langley & Abdallah, 2011). In addition, access to the integration team members during the post-acquisition integration process is a useful complement to the tendency in existing studies to conduct research based on retrospective data (e.g., Graebner & Eisenhardt, 2004). Hence, exploring integration team members who are still in the process of designing and executing their integration 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 (Kahneman, 2011; Tversky & Fox, 1995). Second, the chosen research design provided the means to elicit multiple voices of potential importance in understanding the uncertainties in integration team members' decision-making processes.

This research integrates qualitative 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.¹ 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” (Gioia et al., 2012, p. 2). This methodology implies a continuous reproduction of the interpretative cycle of data collection and reconnection of results to theory, in which the collected data is compared with existing knowledge and theory (Bonfanti, Castellani, Giaretta, & Federico, 2019). Through the application of abductive data analysis, new concepts are re-elaborated from the results and a renewal of meanings follows to encourage the establishment of new valid understandings about the concepts. 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. Several stages of data analysis, interpretation, and re-elaboration are required to generate new concepts and discover complementary conceptualizations (Visvizi, Troisi, Grimaldi, & Loia, 2021). This empirical research included four stages (see part 3.3).

Access to the real-time data on integration planning and execution process was generated primarily through the interviews. A total of 20 semi-structured interviews with 18 integration team members (of whom eight were from the acquired firm and 10 from the buying firm) were collected during the integration in 2015–2016. Interviewing integration team members during their decision-making processes or very soon afterward allowed the author to capture some major reactions when they were fresh, and the integration team members themselves were trying to make sense of them, and that helped to avoid post-rationalization when the outcomes were unknown. Before their full involvement in the integration process, the interviewees were managers at different levels: vice presidents, department managers, directors, and team leaders. Although most of them had rich managerial experience, merger and the following integration were quite a new experience for them. The interviews took place at the integration team members' offices and via Skype (chosen based on its familiarity, availability, and accessibility to both the researcher and the interviewed managers). Online interviews were organized with the integration team members 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. Whenever it was possible, the researcher insisted on face-to-face interviews. Even when organized via Skype, video calls were used over audio calls. To reach a rich view of the topic, the researcher's aim was to interview the whole integration team. Still, integration team members from sales,

¹ While 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 & Abdallah, 2011), this study applies Gioia methodology to organize the structure, systematically reduce the data, and perform the coding.

branding, and marketing work streams were hard to reach even after a couple of attempts because of their limited availability.

A total of 18 integration team members participated in the research. One of the managers was the key contact person and was also centrally giving the researcher organizational acceptance. That integration team member was also interviewed three times to obtain additional clarifying information on the integration-related decision-making processes. In total, 20 semi-structured interviews were conducted.

Non-interview data were used for studying phenomena in their social context. The non-interview data for this study included 25 issues (224 pages) of the merging companies' weekly newsletters on M&A²; 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.

This paper adopts *interpretive sense-making* as the method of theorizing (Lincoln & Guba, 1985; Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mantymaki, 2011). In line with integrated methods³ approaches (Gioia et al., 2012; Glaser & Strauss, 1967; Strauss & Corbin, 1998), this research assumes that the interviewed integration team members construct their realities about the integration process and are “knowledgeable agents who can explain their thoughts, intentions, and actions” (Gioia et al., 2012, p. 3). To discover new concepts and to give voice to the interviewed integration team members, 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 team members perceived, particular attention was paid to the ways in which integration team members 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 team members which is important in understanding how integration team members' contrasting views about the same events came to co-exist. The integration team members' 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 triangulating and understanding the background to events, as well as the uncertainty management methods mentioned by integration team members during the interviews (Miles & Huberman, 1994).

² The newsletters were the main sources of the merger update to the employees in the merging companies and were not publicly available. 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 team members responsible for the integration of particular departments. Integration team members from communication work stream were creating content for the newsletters. The content of the newsletters was very detailed and informative with the specific examples of the decisions being made. In addition, comparing them with the information generated through the interviews, the information on those newsletters reflected the reality of the integration process. Therefore, in certain occasions, the information from the newsletter was integrated as the primary data along with the interviews conducted by the author.

³ 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).

3.2. Case background

The case in focus in this study is a symbiotic 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 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 team members 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, 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 team members with one manager being a lead and one to three other 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. At the time of the data collection, integration team members from the acquired firm were leading R&D, communication, finance, sales, and branding areas in the workstreams. Integration team members from the buying firm were leading the following areas: supply chain, product portfolio, productivity, HR, IT, and marketing. The integration team members 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 team members worked in groups of two to three people to find the best solutions within each area. For the data collection, integration team members from 8 workstreams were available. The progress of the workstreams was supervised by the corporate merger management office (MMO), which consisted of one head manager and four managers who provided execution support in communication, product management, financial, and strategic areas of the integration. All managers of the MMO were represented by integration team members of the buying firm. Still, there was no “integration manager” leading the integration as defined in [Teerikangas et al. \(2011\)](#). The structure of the work streams and interviewed integration team members is provided in [Table 1](#).

3.3. Data collection and analysis

The standard procedures for conducting qualitative semi-structured

interviews ([Kvale & Brinkmann, 2015](#)) were followed to organize the interview sketch into two main sections ([Appendix A](#)). 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 are the 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.

The interviews with integration team members began in the end of 2015, a year after the official closing of the deal and signing of the agreement and took place over the subsequent ten months. During that period, eight integration team members from the acquired firm and ten integration team members from the buying firm were interviewed. 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. A story-telling approach was to shape the qualitative semi-structured interviews ([Czarniawska, 2004](#)), and 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 data collected was interpreted and analyzed through the technique of qualitative content analysis ([Gioia et al., 2012](#)). It allows collecting data through resembling a questionnaire, in which transcribed texts are considered as units of classification. The interpretative sense-making requires to fulfill this kind of content analysis. Since it is neither structured nor codified through specific parameters, this technique was integrated with the criteria laid down in the Gioia methodology. The key four stages of the research process are described in the following sub-paragraphs.

3.3.1. Identification of the leading themes in the literature

During this stage, after the identification of the research questions, the leading themes (see [Table 2](#)) for the interview sketch ([Appendix A](#)) were identified. The themes deductively derived from the literature review on the post-acquisition integration processes that were described in section 2 of the paper. Since post-acquisition integrations have been studied primarily from the perspective of ambiguity ([Meglio & Risberg, 2010](#)), merger syndrome ([Mirvis & Marks, 1992](#)), as well as controllability ([Bijlsma-Frankema, 2004](#)), but not as regards of uncertainty and uncertainty management, the questions of the interview have been elaborated primarily about these two concepts. By means of uncertainty and uncertainty management concepts, reframed as statements and questions during the interviews, the researcher guided and oriented the discussion with the integration team members to permit the emergence of the different sub-topics. The aim was to capture real perceptions and

Table 1
Structure of the work streams and interviewed integration team members.

Merger management office (MMO)			Interviewed integration team members from the acquired firm (AF)	Interviewed integration team members from the buying firm (BF)
Work streams	1	Procurement	Lead from BF; co-lead from AF	1 manager
	2	Supply chain and productivity	Lead from BF; co-lead from BF; two co-leads from AF	2 managers
	3	R&D	Lead from AF; co-lead from BF	1 manager
	4	Product portfolio	Lead from BF; two co-leads from AF	1 manager
	5	Finance	Lead from AF; co-lead from BF	1 manager
	6	HR	Lead from BF; co-lead from AF	1 manager
	7	Communications	Lead from AF; co-lead from BF	1 manager
	8	IT	Lead from BF; co-lead from AF	1 manager

Table 2
The identification of the themes and the development of the interview sketch.

Macro-areas of the study	Themes obtained from the literature	Questions
Uncertainty management	Uncertainty reduction/ strategic interdependency	To your opinion, can this faced uncertainty be managed? What would be the ideal way to manage it?
	Uncertainty coping/ organizational autonomy	How easy/difficult was it to follow that principle of managing uncertainty in your actual decision-making?
Decision-making under uncertainty	Post-acquisition integration being a controllable process	Can you talk more about decisions you planned and decisions you made?

opinions of the integration team members and not to force the scientific understandings and interpretations. In addition, interviews and analysis occurred in parallel, meaning that analysis of the data started during the transcript of the interviews, and that also shaped the progress of the interviews. As interviews and data analysis progressed, the researcher could ask more specific questions (e.g., “During one of the interviews, your colleague mentioned that she is concerned about the future jobs of her subordinates after the integration, do you think you have similar

concerns about your subordinates?”).

3.3.2. Coding

During this step, the data obtained from the transcription of interviews were systematized. To identify uncertainty management approaches, the researcher listed and analyzed the textual units where integration team members talked about how they resolved uncertain situations or how they made decisions under uncertainty. Fig. 1

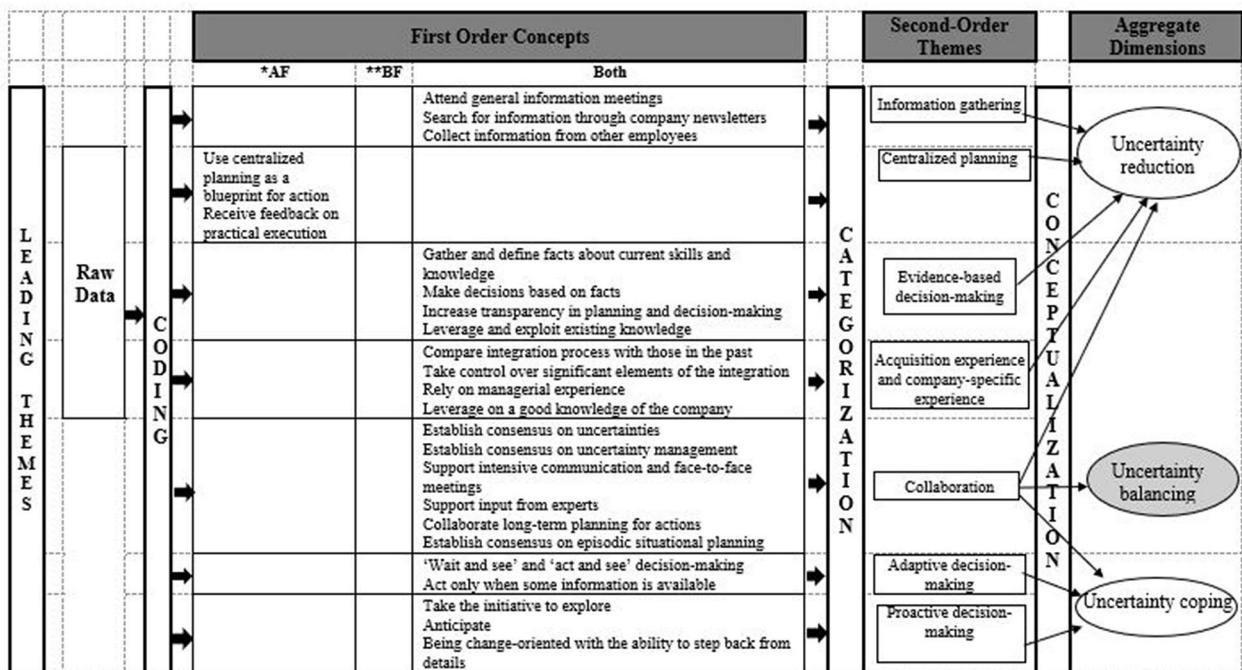


Fig. 1. The different steps of research process.

*AF – integration team members from an acquired firm; **BF – integration team members from a buying firm.

illustrates the different steps of content analysis related to uncertainty management (see Appendix B for exemplary excerpts for each first-order concept in Fig. 1).

The researcher read the transcript of interviews three times with a one-month interval between the readings and conducted the coding after each reading to ensure that consistency checks are performed to compare coding schemes and obtain a unique coding scheme. As a result, the theoretical concepts that guided the interview sketch and data collection were edited and broadened to include the novelties emerging from the empirical data. 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.

3.3.3. Categorization

The goal of this step is to link the findings obtained in the coding to the different themes identified as guidelines to the research by fostering the transition from first-order concepts to a new interpretation of data. The results of the coding are then classified by the researcher into new conceptual categories known as second-order themes. These themes originate from the researcher’s interpretations and integration team members’ words at a higher level of abstraction (Charmaz, 2001) and stem from the continuous interrelation between deductive and inductive processes, in which uncertainty and uncertainty management-related themes are reviewed, specified, and revised through cycles of interpretation.

3.3.4. Conceptualization

This stage is based on the extraction of minimum units of meaning from the sub-categories identified in the categorization (Visvizi et al., 2021). Thus, second-order themes are aggregated and transformed into different approaches to uncertainty management based on the integration team members’ perception of uncertainty as either a threat or an opportunity. The final conceptual categories derive through a reaggregation of the second-order themes that are linked to the key concepts of this study. After the conceptualization, the names of some categories are borrowed from the literature (i.e., uncertainty reduction and

uncertainty coping), whereas a new category with a new name is introduced (i.e., balancing uncertainty). At the end of the process, the results are conceptualized within a framework that summarizes each research question (Fig. 2).

4. Findings

This section presents the research findings on how integration team members manage uncertainty and how they make decisions amidst conflicting demands to cope with and reduce uncertainty. The paper then considers practical implications that underpin these enabling activities drawing illustrations from the case companies.

Integration team members 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. Based on the data, uncertainty management method identified by the researcher as uncertainty balancing was observed.

4.1. Uncertainty reduction

Uncertainty reduction encompassed the efforts of integration team members to take control of the situation, establish stability and strategic interdependency, 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 team members 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, determine the integration team members’ responsibilities, and be aware of what was expected of them.

Once they had obtained basic information about the integration, the integration team members 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 team members from

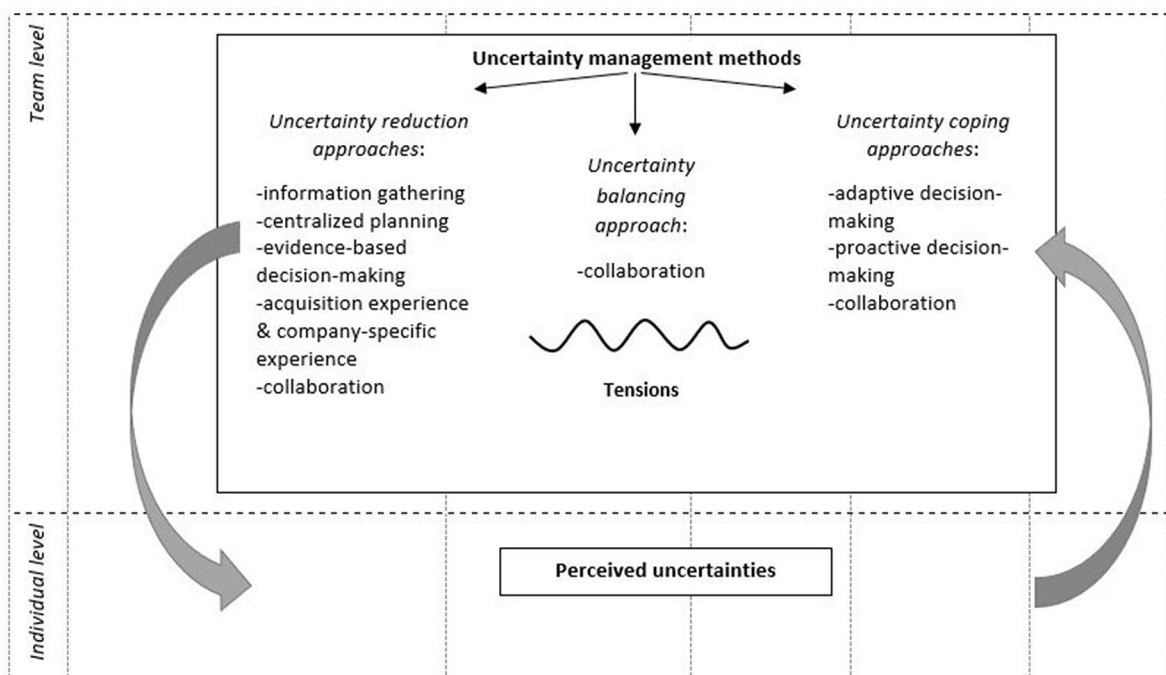


Fig. 2. A framework of uncertainty management methods during the integration process.

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 team members from the acquired firm referred to *centralized planning* provided by the buying firm.

Integration team members 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 team members from either firm had previous experience in acquisition, most had experience in business transfers or mergers within one company. Naturally, integration team members tend 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 team members had lengthy company-specific experience, which was particularly important for those who lacked acquisition experience. It is that experience that enables integration team members to anticipate whether a new structure or approach would work for their companies.

Finally, integration team members from both firms *collaborated* to reduce uncertainty. Collaboration implies forming consensus about where uncertainty emerged and on how to manage it. Through collaboration, integration team members shared information and planned actions on integration. Since the speed of decision-making varied significantly among integration team members 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.

4.2. Uncertainty coping

In terms of uncertainty coping, integration team members used this method to increase decision-making flexibility and organizational autonomy. 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 team members 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 team members from both firms used reactive coping. Integration team members 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 team members still had to act, *proactive decision-making* was one of the most commonly observed behaviors of integration team members from both firms. The following elements of proactive decision-making were observed among integration team members 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 team members 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 team members 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. With regard to uncertainty coping, collaboration was seen as a type of managerial behavior where integration team members 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, support intensive communication among integration team members, and 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 team members 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 team members 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.

4.3. Uncertainty balancing

The findings of this research illustrate that integration team members from both acquired and buying firms used activities related to both reduction and coping to address the most complicated sets of uncertainty, such as the inherent complexity of best practice, the lack of institutional leadership, or perceived justice. 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 team members 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 team member 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 team member from an acquired firm, interview)

This example illustrates that applied previous acquisition experience and company-specific experience allowed integration team members 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 team members' ability to step back from details and problems to create a more holistic understanding of the integrating firms and to develop innovative solutions.

Uncertainty balancing is a dynamic process that requires interchanging activities of both uncertainty reduction and uncertainty coping. The findings of this study revealed that *collaboration* is the way

to go from one method to another. To illustrate the dynamic nature of uncertainty balancing, the paper outlines an exemplary decision-making process, in which integration team members from both firms were involved during the post-acquisition process.

One of the numerous decisions that integration team members were responsible for related to the transformation of the top management team vision into strategic rationale. During this decision, conceptualized as the overarching strategic rationale, integration team members were making decisions to formulate the integration strategy. Although the executives of the integrating firms set the vision and defined strategic targets for the integration, the content of the strategy was still too abstract to conduct systematic planning of the integration. “*We go for market leadership*”, stated the executive of the buying firm. “[...] *we were able to announce our new ambition and the merger principles guiding us towards this ambition: Going for number one*”, the executive of the acquired firm confirmed. In addition, the executives of the integrating firms stated that a key reason for the merger was value creation through reciprocity rather than dominance. Based on the presented vision, integration team members were expected to provide insights for the integration strategy formation and think about a new structure, new product portfolios, new operations, branding, IT services, HR alignment, performance standards, and new facilities. In turn, the integration team members from both firms found the presented vision to be rather implicit where factual details were not defined, and application was unclear. For example, one of the integration team members from the acquired firm worried, “*You don’t know what the strategy of the company is, but still you have to be able to make the right decisions for the portfolio*”.

Despite the ambiguity in top management team vision, integration team members were expected to execute their integration-related duties. At that moment, the most important concern for the integration team members was to think about the structure and plan operational decisions-making proceedings in a new organization. To manage uncertainties related to the lack of leadership, integration team members used the following approaches of uncertainty coping: adaptive decision-making and proactive decision-making.

In terms of adaptive decision-making, it was important for the integration team members to identify the key main problem in the integration of the functions that they were responsible for and to adapt proper solutions. Lack of clarity in top management team vision was the most frequent concern of the integration team members because it had an impact on how integration team members perceived the integration activities in their functions. They did not see a concrete basis for the integration as well as specific guidance on how to deal with practical decisions. The loudest concern came from the integration team members working with branding. Integration team members were concerned about identifying 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? How to continue? This is something that we do not know yet. We are in the process to think and to plan. We do not know what the reaction of the customers will be ... We have to discuss these kinds of topics in professional way and to have a good communication with our customers on what we are going to do. Will they support?*” (Integration team member from the acquired firm, interview).

The second approach to manage uncertainty was proactive decision-making. The presented vision was also interpreted by integration team members as a moment to rethink and change old and inefficient ways of operation in companies, thereby identifying a need for change. Because 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 old IT systems or an aging production and manufacturing chain. “*It is all about my own organization technology, innovation and platforms strategy. We have own responsibility to govern new product platforms ...*”, as one of the integration team members from the acquired firm explained.

When presenting uncertainty coping approaches to the integration team members in workstreams, integration team members collaborated

about how to proceed with their decision-making. As a result, adaptive decision-making was followed by the evidence-based decision-making, and proactive decision-making was followed by the centralized planning. Decision related to the branding of the companies’ products proceeded almost unnoticed through workstreams by integration team members from the buying firm, but it was a notable decision from the perspective of integration team members from the acquired firm because most of their previous work on product development was considered insignificant given that certain product lines were discontinued. One integration team member from the acquired firm stated: “*We had the readouts in August. I thought that I would start to execute them based on some of the recommendations that were done on those work already in August [...] and then very early in September the merger was announced. Of course, that changed the entire agenda*”. To proceed, integration team member from the acquired firm had to follow successive decisions and agree with the integration team members 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 and would be based on facts. “*It is crucial that all the work is based on facts: this is a principle we all agreed upon in our first meeting*”, as product portfolio integration team member from the buying firm mentioned.

Second, the decision on a need to update old systems in the organizations led to an acceptance of the changes that were implemented through mutual agreement of the centralized planning. “*We realized early on that there might be great synergies on SAP programs. The acquired firm was about to launch SAP pilot in the USA when the merger was announced. We agreed that this fits well with the buying firm ERP plans. A lot of effort has been put on enabling the one approach towards our customers as early as possible*”, integration team member from the buying firm stated.

As observed among integration team members, the nature of uncertainty is many kinds, and it varies depending on an individual. While working in an integration team, integration team members tried to further joint uncertainty management activities by taking into account both own and other integration team members’ perceived uncertainties. Thus, collaboration included aspects that enabled an integration team member to recognize uncertainties of the other integration team members and that promoted open discussion to manage these uncertainties.

The integration team members defined collaboration as working closely together and doing something together. It also entailed deliberate efforts by integration team members from both firms to coordinate their integration activities with each other. As in most human relationships, collaboration among integration team members 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 team members’ decision-making in this context:

If you look at all infrastructure, office, obligations, communications, everything, you need to have in place as your basic infrastructure. And this has been, I should say, quite a big success. Also, the collaboration between [acquired firm] people and [buying firm] people has been a great success to my mind ... Having done that within a year is surely done due to the fact that people have been working constructively together and making the technical solutions possible. (Integration team member from a buying firm, interview)

5. Discussion and conclusion

5.1. Theoretical implications

To answer the first research question, the findings of this study shed light on a number of different types of uncertainty reduction and uncertainty coping approaches that integration team members used during the post-acquisition integration process. Uncertainty balancing emerged as a new method to address the most challenging types of uncertainty.

Moreover, this research illustrates that post-acquisition integration decision-making depends on myriad influences that reside at different

levels (Fig. 2). The role of integration team members and integration teams in the way they perceive and manage these uncertainties is fundamental for understanding how post-acquisition integration process works. While existing literature differentiates between the approaches used by the integration team members from the buying and acquired firms (Chreim & Tafaghod, 2012; Vaara, 2003), this study illustrates that these approaches of uncertainty reduction, uncertainty coping, and uncertainty balancing were interchangeably used by integration team members from both firms. One possible explanation of the observed phenomenon lays in the context in which integration team members operated. Integration team members from both firms described their integration process as “the merger of equals” and where the voices of managers were heard.

In the light of the above, this study contributes to the M&A literature by offering an uncertainty perspective, particularly, as regards integration team members. Prior M&A research has primarily focused on integration team members and their influence on acquisition outcomes, while this study is focused on their experience of uncertainty.

To answer the second research question on how integration team members manage tensions in uncertainty management, this paper makes two key contributions. First, as the findings of this study show, the management of uncertainty is a process of constant collaboration that leads to switching between uncertainty reduction and uncertainty coping, making it a more dynamic process than previously perceived in the existing literature. The dynamic nature means that integration team members' 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, and finding the right balance between these tensions.

This study also contributes to the idea of confrontation between interdependency and autonomy (Haspeslagh & Jemison, 1991) by extending our understanding about contingencies that promote one method over the other. This study demonstrates that the reduction of uncertainty and establishment of strategic interdependency can be achieved when the overall level of uncertainty in the post-acquisition integration is perceived as low. With higher levels of uncertainties, coping with uncertainties locally as well as balancing between the methods should be enabled.

The large amount of uncertainties significantly complicates the decision-making of integration team members. 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. Furthermore, as the findings of this study show, the choice of uncertainty management methods is never simple and direct, but rather a complex 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 literature that managers are rational decision-makers who make decisions based on accurate perceptions of situational conditions that are considered systematically in an analytical 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).

By shedding light on the individual integration team members and the kinds of uncertainty management methods and approaches they use while making decisions in the context of post-acquisition integration (Fig. 2), this study contributes to M&A literature by challenging our understanding of the post-acquisition integration process as a controllable process. Along with possible impediments that may be inherent in the post-acquisition integration process and may distract from direct managerial control (Jemison & Sitkin, 1986), unlike what the dominant view in the literature suggests, M&A integration cannot be fully controlled via various management practices nor can uncertainty be fully removed or reduced.

Second, collaboration among integration team members was the way to address tensions in uncertainty management. 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 (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 team members 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 team members' uncertainty management decisions emerged as an important key to understanding how collaboration contributes to the management of tensions.

In M&A literature, the talk about the importance of collaboration remains in a rather superficial level, without much conceptual or practical development to help introduce this concept into the actual management of post-acquisition integration. This research addresses the mentioned shortcoming by illustrating and discussing the important role of collaboration in the work of integration team members. The concept of collaboration brings new perspective on the process of M&A (Thanos et al., 2019), illustrating that there is a need to transition from a traditional execution of the top-down post-acquisition integration plans toward dialogue with the integration team members responsible for the success of the integration.

Such a strong emphasis by integration team members 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; Raitis, Harikkala-Laihin, Hassett, & Nummela, 2017). 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 team members in addressing uncertainty management tensions.

5.2. Practical implications

For organizations and integration team members 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 that integration team members perceive. 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 team members, within and across integration workstreams, which allows a fair distribution of uncertainty among the integration team members involved.

5.3. Limitations and future research

While this study explores integration team members' 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 explore the different uncertainties and uncertainty management methods as they evolve. To discern what works and what does not, we need to understand what integration team members do during the integration decision-making processes. Future studies would benefit from a longitudinal approach in order to fully grasp the nature of integration team members' decision-making during post-acquisition integration. A longitudinal examination of the relationships among uncertainty management methods adopted by integration team members, 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 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 team members 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 team members and thus their relationship with the managing directors concerned. Moreover, more research would be required to understand the effects of having integration team members 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 team members' understanding of a new vision significantly shapes their post-acquisition integration decision-making processes. Nevertheless, integration team members from both buying and acquired firms need to agree to collaborate to balance the level of uncertainty and combine uncertainty reduction and uncertainty coping activities. Lastly, to steer collaboration and address uncertainty management methods, integration team members have to build trust, achieve consensus, and support communication.

Declaration of competing interest

None.

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Appendix A. Interview sketch

Interview date:

Place:

Interviewee:

AGENDA

- Thanking an interviewee
- Short introduction to the research
- Confidentiality aspects

Questions

Section 1

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?

Section 2

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?

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(continued)

Concluding thoughts

18 Is there anything you would like to add to any of the themes we have discussed?

19 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

APPENDIX B. Supporting excerpts for each second-order theme on uncertainty management

Second-order themes	Representative quotes for first-order codes
1. <i>Information gathering</i>	<p>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 team member from acquired firm, interview)</p> <p>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 team member from buying firm, interview)</p> <p>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 team member from acquired firm, interview)</p>
2. <i>Centralized planning</i>	<p>2.1 “Lots of changes ... All the sourcing activities and contract price negotiations, risk responsibilities they were taken over by so called [buying firm] 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 team member from acquired firm, interview)</p> <p>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 team member from acquired firm, interview)</p> <p>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 team member from acquired firm, interview)</p>
3. <i>Evidence-based decision-making</i>	<p>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 team member from acquired firm, interview)</p> <p>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 team member from buying firm, interview)</p> <p>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 team member from acquired firm, interview)</p>
4. <i>Acquisition experience and company-specific experience</i>	<p>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 team member from acquired firm, interview)</p> <p>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 team member from acquired firm, interview)</p> <p>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 team member from MMO, interview)</p>
5. <i>Collaboration</i>	<p>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 team member from buying firm, interview)</p> <p>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 team from buying firm, interview)</p> <p>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 team member from acquired firm, interview)</p> <p>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 team member from acquired firm, interview)</p>

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Second-order themes	Representative quotes for first-order codes
	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 team member 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 team member 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 team member 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 be uncertainties. Two years from now we will make new decisions.” (Integration team member 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 team member 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 team member 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 team member 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 team member from MMO, interview)

References

- 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>
- Angwin, D. N., & Paroutis, S. (2009). Connecting up strategy: Are senior strategy directors (SSDs) a missing link? *California Management Review*, 51(3), 74–94.
- 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.
- 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.
- Balle, N. (2008). Hearts at stake. *Corporate Communications*, 13, 56–67.
- 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., & 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>
- Bijlsma-Frankema, K. (2004). Dilemmas of managerial control in post-acquisition processes. *Journal of Managerial Psychology*, 19(3), 252–268.
- Bonfanti, A., Castellani, P., Giaretta, E., & Federico, B. (2019). Developing entrepreneurial learning triggered by factory tours. *The Learning Organization*, 26(6), 574–587.
- Bryant, M., & Stensaker, I. (2011). The challenges of middle management change agents: How interactions can provide a way forward. *Journal of Change Management*, 11(3), 353–373.
- 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.
- 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, 65–76. <https://doi.org/10.1111/j.1467-8551.1990.tb00163.x>
- Charmaz, K. (2001). Grounded theory. In R. M. Emerson (Ed.), *Contemporary field research* (pp. 335–352). Long Grove: Waveland Press, Inc.
- 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>
- Clark, S. M., Gioia, D. A., Ketchen, J. J., & Thomas, J. B. (2010). Transitional identity as a facilitator of organizational identity change during a merger. *Administrative Science Quarterly*, 55, 397–438.
- 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>
- Czarniawska, B. (2004). Narratives in social science research. In *Introducing qualitative methods*. London: Sage Publications.
- Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadership: Top executives and their effects on organizations*. St Paul, MN: West Publishing.
- 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.
- 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.
- 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. <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>
- Grote, G. (2004). Uncertainty management at the core of system design. *Annual Reviews in Control*, 28(2), 267–274. <https://doi.org/10.1016/j.arcontrol.2004.03.001>
- Grote, G. (2009). *Management of uncertainty: Theory and application in the design of systems and organizations*. London: Springer-Verlag.

- Hambrick, D. C., & Cannella, A. A. (1993). Relative standing: A framework for understanding departures of acquired executives. *Academy of Management Journal*, 36(4), 733–762. <https://doi.org/10.5465/256757>
- Harding, N., Lee, H., & Ford, J. (2014). Who is “the middle manager?”. *Human Relations*, 67(10), 1213–1237. <https://doi.org/10.1177/0018726713516654>
- Haspelslagh, 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). Switzerland: Springer International Publishing AG.
- 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](https://doi.org/10.1016/0090-2616(80)90013-3)
- Huy, Q. N. (2002). Emotional balancing of organizational continuity and radical change: The contribution of middle managers. *Administrative Science Quarterly*, 47, 31–69. <https://doi.org/10.2307/3094890>
- 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, 994–1007.
- Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux.
- Kroon, D. P., & Reif, H. (2021). *The role of emotions in middle managers' sensemaking and sensegiving practices during post-merger integration*. Group & Organization Management. <https://doi.org/10.1177/10596011211037789>
- Kvale, S., & Brinkmann, S. (2015). *InterViews: Learning the craft of qualitative research interviewing* (3rd ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- Langfred, C. W., & Rockmann, K. W. (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, C. (2011). Templates and turns in qualitative studies of strategy and management. In D. D. Bergh, & D. J. Ketchen, Jr. (Eds.), *Building methodological bridges: Research methodology in strategy and management* (Vol. 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., & Lubatkin, M. (2001). Achieving acculturation in mergers and acquisitions: An international case survey. *Human Relations*, 54(12), 1573–1607.
- Lawrence, P. R., & Lorsch, J. (1967). *Organization and environment*. Cambridge, MA: Harvard University Press.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Lubatkin, M., Calroi, R., Véry, 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.
- 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.
- Mantere, S., Schildt, H. A., & Sillince, J. A. A. (2012). Reversal of strategic change. *Academy of Management Journal*, 55, 172–196.
- Marks, M. L., & Mirvis, P. H. (1985). Merger syndrome: Stress and uncertainty (Part 1). *Mergers and Acquisitions*, 20(2), 50.
- 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). *Joining forces – making one plus one equal three in mergers, acquisitions and alliances*. San Francisco: Jossey-Bass Inc.
- 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.
- Meglio, O., & Risberg, A. (2010). Mergers and acquisitions—time for a methodological rejuvenation of the field? *Scandinavian Journal of Management*, 26(1), 87–95. <https://doi.org/10.1177/0021886306289420>
- 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*. Thousand 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>
- Mirvis, P. H., & Marks, M. L. (1992). *Managing the merger: Making it work*. New Jersey: Prentice Hall.
- Moilanen, S. (2016). Sensemaking of post-acquisition changes in accounting and control. *Journal of Applied Accounting Research*, 17(1), 24–42.
- 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. *British Journal of Social Psychology/The British Psychological Society*, 37(3), 345–365. <https://doi.org/10.1111/j.2044-8309.1998.tb01176.x>
- 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>
- 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., & 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. Pettitta L (Eds.), *Emotions and identity: Research on emotions in organizations* (Vol. 13, pp. 3–16). Bingley, UK: Emerald Group Publishing Limited.
- 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.
- 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>
- 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.
- Schriber, S. (2012). Weakened agents of strategic change: Negative effects of M&A processes on integration managers. *International Journal of Business and Management*, 7, 159–172.
- 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.
- Schweiger, D. M., Ivancevich, J. M., & Power, F. R. (1987). Executive actions for managing human resources before and after acquisition. *The Academy of Management Executive*, 2, 127–138.
- Schweizer, L. (2005). Organizational integration of acquired biotechnology companies in pharmaceutical companies: The need for a hybrid strategy. *Academy of Management Journal*, 48(6), 1051–1074.
- Shrivastava, P. (1986). Postmerger integration. *Journal of Business Strategy*, 7(1), 65–76.
- Sinclair, M., & Ashkanasy, N. M. (2005). Intuition: Myth or a decision-making tool? *Management Learning*, 36, 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. *Internal Business Review*, 20(1), 27–47.
- 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>
- Solstad, E., & Petterson, I. J. (2020). Middle managers' roles after a hospital merger. *Journal of Health, Organisation and Management*, 34(1), 85–99. <https://doi.org/10.1108/JHOM-09-2018-0269>
- Somers, M., & Bird, K. (1990). Understanding the human resources implications of mergers: An assessment of post-merger human resources fit. *Journal of Managerial Psychology*, 5, 38–42.
- 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. (2012). Dynamics of acquired firm pre-acquisition employee reactions. *Journal of Management*, 38(2), 599–639.
- Teerikangas, S., & Birolo, 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>
- Thanos, I. C., Angwin, D., Bauer, F., & Teerikangas, S. (2019). Reshaping M&A scholarship – broadening the boundaries of M&A research. *European Management Journal*, 37(4), 411–412.
- Thompson, J. D. (1967). *Organizations in action*. New York: McGraw-Hill.
- Tversky, A., & Fox, C. R. (1995). Weighting risk and uncertainty. *Psychological Review*, 102(2), 269–283.
- Vaara, E. (2003). Post-acquisition integration as sensemaking: Glimpses of ambiguity, confusion, hypocrite, and politicization. *Journal of Management Studies*, 40(4), 859–894. <https://doi.org/10.1111/1467-6486.00363>
- 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. (1997). 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](https://doi.org/10.1002/(SICI)1097-0266(199709)18:8<593::AID-SMJ899>3.0.CO;2-I)
- 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>

- Visvizi, A., Troisi, O., Grimaldi, M., & Loia, F. (2021). Think human, act digital: Activating data-drive orientation in innovative start-ups. *European Journal of Innovation Management*. <https://doi.org/10.1108/EJIM-04-2021-0206>. ahead-of-print No. ahead-of-print.
- 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., & Souder, D. (2013). Synergy sources, target autonomy, and integration in acquisitions. *Journal of Management*, 39(3), 604–632. <https://doi.org/10.1177/0149206311403152>