

Agents' context-specific conduct in making strategic investment decisions

Strategic
investment
decisions

27

Jari Huikka

Department of Accounting, School of Business, Aalto University, Espoo, Finland

Elaine Harris and Moataz Elmassri

Business School, Roehampton University, London, UK, and

Deryl Northcott

Department of Accounting, Auckland University of Technology, Auckland, New Zealand

Received 14 April 2023
Revised 17 December 2023
Accepted 18 January 2024

Abstract

Purpose – This study aims to explore how managers exercise agency in strategic investment decisions (SIDs) by drawing on their knowledgeability of the strategic context. Specifically, the authors address the role of position–practice relations and irresistible causal forces in this conduct.

Design/methodology/approach – The authors examine SID-making (SIDM) practices in four case organisations operating in highly competitive markets, conducting interviews with managers at various levels and analysing company documents. Drawing on strong structuration theory, the authors show how managerial decision makers draw upon their knowledge of organisational context when exercising agency in SIDs.

Findings – The authors provide insights into how SIDM behaviour, specifically agents' conduct, is shaped by a combination of position–practice relations and the agents' comprehension of their organisation's context.

Research limitations/implications – The authors extend the SIDM literature by surfacing the issue of how actors' conjuncturally-specific knowledge of external structures shapes the general dispositions they draw on in exercising agency in practice.

Originality/value – The authors extend the SIDM literature by surfacing the issue of how actors' conjuncturally-specific knowledge of external structures shapes the general dispositions they draw on in exercising agency in practice. Particularly, the authors contribute to this literature by identifying irresistible causal forces and illuminating why actors might not resist in SIDM processes, despite having the potential to do so.

Keywords Strategic investment decision-making, Strong structuration theory, Knowledgeability, Position–practice relation, Irresistible causal forces, Case study

Paper type Research paper

© Jari Huikka, Elaine Harris, Moataz Elmassri and Deryl Northcott. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

The authors would like to thank Erkki Lassila, and Rodrigo Silva de Souza for helpful comments on earlier versions of this paper. In addition, the authors gratefully acknowledge comments from the participants of the 11th ENROAC conference (2017, University of Naples, Italy), MARG conference (2017, Aston Business School, UK), Management Control Association's Strong Structuration Theory workshops (2017, University of Essex, UK, and 2018, Dublin Institute of Technology, Ireland), 16th New Zealand Management Accounting Conference (2022, Auckland University of Technology, New Zealand) and the accounting research seminar at the University of Auckland (New Zealand). The financial support granted to the authors by the ICAEW is acknowledged with gratitude.



1. Introduction

Decisions supporting or developing business strategies are crucial and challenging amidst the increasingly uncertain global business environment. Consequently, understanding how strategic investment decisions (SIDs) are made remains an ongoing subject of research attention (Bower, 2017). Traditional research streams on strategic investment decision-making (SIDM) tend to focus on the techniques and processes applied in organisations to evaluate prospective projects (see e.g. Bower, 1970; Pike, 1988, 1996; Arnold and Hatzopoulos, 2000; Alkaraan and Northcott, 2006; Huikku *et al.*, 2018). Another stream of research has focussed upon the behaviour of decision makers and their cognitive processes in forming individual judgements in SIDM (see, e.g. Jørgensen and Messner, 2010; Emmanuel *et al.*, 2010; Harris, 2014; Grant and Nilsson, 2020). We build on this behavioural stream of literature that explores SIDM beyond financial techniques and focus on the managers as decision-makers.

Furthermore, a stream of recent research has broadly examined the interplay between agents and structures in organisations, along with the social context of behaviour, using concepts from structuration theory by Giddens (1984) and Stones (2005, 2015). Strong structuration theory (SST; Stones, 2005) has been applied to studies in management accounting (Jack and Kholeif, 2007; Coad *et al.*, 2015; Feeney and Pierce, 2016), but only recently applied to SIDM by Elmassri *et al.* (2016) and Warren and Jack (2018). Even though their work focuses more on the SIDM process and techniques, these studies also examine the role of individuals in the SIDM process more closely. Elmassri *et al.* (2016) examined in their field study how local Egyptian managers responded to the impact of emergent structures that originate from the post-revolutionary context in SIDM. Warren and Jack (2018) investigated how UK electricity generation company managers used their knowledge of the contextual field and net present value modelling to strategically respond to and advocate for change.

This paper seeks to enrich the limited literature on SIDM focusing on the interplay between agents and structures, and aims to foster a more nuanced and integrative understanding of organizational SIDM practices. We use SST (Stones, 2005) as our method theory (Lukka and Vinnari, 2014). Specifically, our SST examination is inspired by Harris *et al.* (2016, 1197) suggestion based on their extensive SIDM case study and SST analyses that “by applying Stones’ concepts of the knowledgeableability of agents and the power asymmetries and forms of resistance in position–practice relations to future case studies we can enrich our understanding of SIDM”. Harris *et al.* (2016) concluded that SST lends itself to the analysis of SIDM by capturing the behaviours, agency and influences of SIDM actors and the effects of context more explicitly than the alternatives. We accept their argument; using this theoretical lens allows us to shine a spotlight on organisational actors and how they may influence, directly or indirectly, an organisation’s choice of strategic investment projects within a given context.

Our main research question is, “How do managers exercise agency in SIDs by drawing on their knowledgeableability of the strategic context?” We specifically address three sub-questions in this investigation. The first sub-question asks:

- Q1. How does agents’ knowledge of their organisation’s external structures, such as business environment, strategy and critical success factors (CSFs), influence SIDM?

According to Stones (2005, 84), external structures are conditions that enable and constrain agents in producing and reproducing social practices. Elmassri *et al.* (2016) and Warren and Jack (2018) have examined agents’ knowledgeableability about their business environment but in very different contexts. Furthermore, no studies explicitly investigate how agents’

knowledgeability about strategy and CSFs shape their SIDM. The second sub-question explores:

Q2. What are irresistible causal forces in SIDM and why do agents not resist them?

The third sub-question investigates:

Q3. How does agents' view of position–practice relations within organisations shape their SIDM practices?

We have only scarce knowledge about the potentially essential role of irresistible causal forces and position–practices in SIDM, even though [Elmassri et al. \(2016\)](#) and [Warren and Jack \(2018\)](#) have, to some extent, addressed them in their studies. Irresistible causal forces are external influences (e.g. customer requirements) that agents have (physical) capacity to resist in SIDM, but agents feel (psychologically) that they do not have the ability to resist these forces ([Stones, 2005](#), 111–112). Drawing on [Giddens' \(1979\)](#) notions of power, the relationships between the agents in a social network are labelled position–practice relations ([Stones, 2005](#), pp. 93–94).

In examining the questions, we analysed how managers (agents-in-focus) used their interpretative schemes to understand the power and the normative expectations of external structures and agents-in-context (i.e. those not in the midst of the action; [Giddens, 1979](#); [Stones, 2005](#)). In addition, we addressed how this perception is reflected in the habitus of managers in making SIDs. To be able to answer our research questions, we also examine how SIDs are made, who is involved in SIDM, who are the internal and external stakeholders in SIDM and how agents feel about the SIDs being made.

We use case study methods to investigate SIDM practice in four business organisations where managers had close personal involvement in recent or current projects. Evidence was collected through semi-structured interviews and analysis of company documents, with thematic analysis structured around key aspects of the SST.

Our study responds to the call of [Harris et al. \(2016\)](#) and contributes to SIDM literature by providing a more nuanced and integrative understanding of the agencies, processes and other contextual factors that shape SIDs. We extend the SIDM literature ([Elmassri et al., 2016](#); [Warren and Jack, 2018](#)) by providing company-specific ontic-level evidence of how agents-in-focus draw upon their knowledge of the organisation's strategic context. Specifically, we add to prior literature by highlighting what irresistible causal forces are and why agents do not resist them. We extend the literature by enhancing our understanding of the important role of the perceived power position (position–practice relations) of agents involved in the SID process and the consequent lack of challenge some major project proposals encounter. Based on our empirical evidence, we argue that agents' knowledge about irresistible causal forces and position–practice relations may have an even more decisive role in SIDM than suggested by prior literature.

The remainder of the paper is organised as follows. Section 2 presents key aspects of the literature on the SIDM and SST. Section 3 describes the cases studied and research methods used. Section 4 presents the case analysis, followed by a discussion in Section 5. The paper ends with concluding remarks in Section 6.

2. Literature review

2.1 Strategic investment decision-making

This section reviews SIDM literature streams and shows why considering judgemental and contextual aspects is important in making SIDs. Techniques perspective – the traditional

perspective of SIDM literature – has focused on using appropriate investment appraisal techniques, such as net present value and sensitivity analysis (see, e.g. Haka, 2007; Clancy and Collins, 2014 for a review). Based on finance theory, the underlying idea is that only SIDs with net expected returns (benefits) that exceed costs should be accepted, as they positively impact the organisation's value (Shapiro, 2005). Many scholars (e.g. Pike, 1996; Abdel-Kader and Dugdale, 1998; Alkaraan and Northcott, 2006; Verbeeten, 2006; Brunzell *et al.*, 2013; Huikku *et al.*, 2018); have empirically investigated the use of traditional techniques in making SIDs.

Despite traditional techniques being commonly used, they are subject to significant critique. One major challenge is that the traditional approach ignores strategic (non-financial, intangible) aspects (Carr *et al.*, 2010). Another major challenge facing the traditional SID techniques approach is that it ignores contextual influences. Specifically, due to uncertainty, strategic decisions cannot be considered merely a rational endeavour focusing on technical modelling (Daft and Lengel, 1986). Many researchers argue that context is a key influence on SIDs (Hitt and Tyler, 1991; Bryson and Bromiley, 1993; Harris *et al.*, 2016). These critiques of techniques perspective have resulted in the development of process and people perspectives in SIDM (Carr and Harris, 2004; Emmanuel *et al.*, 2010). Uncertainty results in an intuitive process, where decision-makers rely on judgment and experience rather than the technical model (e.g. Agor, 1986; Hensman and Sadler-Smith, 2011). In addition, external environmental uncertainties (Papadakis *et al.*, 1998), organisational context (Kingsley and Reed, 1991) and managerial behaviour (Emmanuel *et al.*, 2010) shape SIDM practices. Thus, the literature has been moving from focusing on the technical model to a more holistic approach in SIDM.

Given the process and people perspective, our focus is on research that has explored SIDM beyond the financial techniques adopted to measure and ensure the feasibility of the projects. We explore the tensions between these financial rationales and strategic rationales. Grant and Nilsson (2020) showed how strategic and financial rationales were produced and judgements based on expertise were made in a business acquisition decision. We are building on this stream of research (Harris *et al.*, 2009; Carr *et al.*, 2010; Jørgensen and Messner, 2010; Emmanuel *et al.*, 2010; Grant and Nilsson, 2020) and paying attention to the role of multiple managers in the SIDM process. Management research that has used qualitative approaches to investigate the behavioural side of strategic decision-making processes (Simon, 1955, 1976; Bower, 1970; Mintzberg *et al.*, 1976; Hickson *et al.*, 1986; Eisenhardt, 1989; Butler *et al.*, 1993; Elbanna and Child, 2007; Bardolet *et al.*, 2011) has revealed the importance of the “hidden process” of decision makers drawing on their intuition in making managerial judgements. Our research echoes the importance of such issues as “strategic fit” and organisational factors (Harris, 1999; Carr *et al.*, 2010) and the roles of human and non-human actors (Jørgensen and Messner, 2010).

In addition to the above-reviewed studies, Elmassri *et al.* (2016) and Warren and Jack (2018) draw on SST and focus on the techniques and process aspects in highly uncertain organisational contexts. Still, they also, to some extent, address people aspects. The next section considers these key studies from an SST perspective. The extreme uncertainty in Elmassri *et al.*'s (2016) study came from the political and social unrest in post-revolution Egypt. They found that in the face of such a turbulent environment, managers relied more upon their knowledge of local conditions and allegiances than investment calculation techniques to ensure that decisions and investments still took place to keep people working. Agents in nationally owned companies (as opposed to multinationals) used their knowledgeability of local conditions to create investment opportunities to keep local people employed even when the financial analysis did not support the projects. They exerted their

preferences for employees to be kept in work over the short-term shareholders' interests to invest in projects that ensured the long-term sustainability of their organisations.

Warren and Jack (2018) investigated how agents within the UK's highly regulated electricity generation industry used their knowledge of the contextual field to strategically respond to and lobby for change. They demonstrated that the structural change in government policy was attributable to the strategic conduct of knowledgeable agents (i.e. senior managers at the electricity generation companies). The managers withheld capital investments based on unprofitable net present value calculations. Also, they used their modelling to communicate to regulators and the government, why they were not investing. Finally, this communication led to a change in regulatory and government policy in a privatised industry. Accordingly, the strategic investment accounting information generated knowledge on which the energy-generating companies could act and also changed the knowledgeable of the regulators and government.

Our research approach differs from Elmassri *et al.* (2016) and Warren and Jack (2018) who have explicitly addressed the role of agents' knowledgeable in SIDM. Their focus was more on techniques and processes than our people-focused endeavour. We conducted an interview-based multiple case study addressing four case firms and their focal investment projects. In contrast, Elmassri *et al.* (2016) interviewed managers from various organisations and industries in Egypt, and no particular firms or investment projects were addressed as cases (country-level analysis). Warren and Jack (2018) conducted a longitudinal interview-based multiple case study in five major UK energy generators.

Taken together, there is a lot of literature about techniques and processes used in SIDM. What we know about SIDM practice suggests it may follow a prescribed process to balance the standard DCF-based financial analysis with other strategic factors. However, this process occurs within the relatively unexplored socio-political contexts of organisations and involves multiple actors who do not always behave in predictable ways. We have only a scarce understanding, of how managers' knowledge about their strategic context enables or constrains SIDM (Elmassri *et al.*, 2016; Warren and Jack, 2018). The knowledgeable of those actors (or agents, as they are called in SST) and their perspectives on their organisations' SIDM processes (both formal and behavioural) are what we aim to surface in our case studies by adopting an SST lens to inform SIDM theory and practice. Specifically, we are interested in how irresistible causal forces and position–practice relations shape SIDM. Accordingly, we address the interplay of agents and structures in our study and work towards a more nuanced and integrative understanding of organisational SIDM practices.

2.2 Strong structuration theory

Core to Giddens's (1984) original theory of structuration is the duality of social structures: that structures are both “out there” in the social world inhabited by agents (external structures) and partly “in here” in the mind and body of the agent (internal structures). The latter refers to the habits and practices of agents, building on Bourdieu's (1977) notion of “habitus”. Giddens's (1984) work is positioned at the abstract level, whereas Stones (2005) builds on Giddens's work to produce a “stronger” form of theorising that may be applied at different ontological levels in empirical research: abstract, meso and ontic level (Stones, 2005, p. 77).

Stones's (2005) SST presents structuration as the quadripartite intertwining between external and internal structures, active agency and outcomes. According to Stones (2005, 84–86), external structures have an existence that is autonomous from the agent-in-focus. External structures constitute acknowledged and unacknowledged conditions of action.

These conditions may enable or constrain action by agents (Stones, 2005). Stones (2005) claims that to conceptualise external causal influences on agents, two types of occurrences of external structures should be encompassed. Firstly, Stones (2005, pp. 111–112) defined “independent causal influences” as external structures that “have complete autonomy from the agents whom they affect”. Furthermore, he defined “irresistible causal forces” as going beyond that, where agents may have the (physical) “capacity to resist an external influence” (to do otherwise, in Giddens’s terms) but where they “feel [psychologically] they do not have the ability to resist”. According to Stones (2005, pp. 114–115), the agent would need the following three properties to be able to resist: (1) adequate power, (2) adequate knowledge of alternative possible courses of action and their consequences and (3) adequate critical distance to take up a strategic stance about a particular external structure and its situational pressures. As shown by Elmassri *et al.* (2016) and Warren and Jack (2018), in the SIDM context, subordinates may also exert some control over their more powerful superiors, i.e. have the ability to enact a dialectic of control (Stones, 2005) [1].

Moreover, internal structures consist of two parts: conjuncture-specific structures and general dispositions. Conjuncture-specific internal structures refer to the agents’ specific knowledge of particular contexts, which is “knowledge of interpretative schemes, power capacities and normative expectations and principles of the agents within context” (Stones, 2005, p. 91). In addition, “general dispositions” (i.e. habitus) are experiences and values that influence agents’ naturally’ without thinking (Stones, 2005, p. 87). This view corresponds with Bourdieu’s notion of habits and Mouzelis’s notion of disposition (Stones, 2005, p. 9). Thus, Giddens’s virtual structures of signification, legitimation and domination constitute the knowledge of conjuncture-specific internal structure (Stones, 2005, p. 91).

General dispositions act as media used by the same clusters of agents across different situations. Stones’ (2005, p. 88) claims that general dispositions encompass:

Transposable skills and dispositions, including generalised world-views and cultural schemas, classifications, typifications of things, peoples and networks, principles of action, typified recipes of action, deep binary frameworks of signification, associative chains and connotations of discourse, habits of speech and gesture, and methodologies for adapting this range of particular practices in particular locations in time and space.

The agents’ general disposition might change over time and space. According to Stones (2005), the interaction between agents’ habitus and their specific knowledge of particular contexts creates new meanings of normative values and power capacities that reshape agents’ general disposition. Elmassri *et al.* (2016) found that the uncertainty of external structures interacts with agents’ dispositions in constructing new structures of signification, legitimation and domination. Furthermore, this interaction shaped the agents’ disposition regarding understanding the meaning of SIDs and following a new receipt of actions throughout the SIDM process. Thus, given time and space, agents’ general dispositions are constructed rather than being simply agents’ conjuncture-specific knowledge of their situations.

Active agency includes the ways agents draw upon their internal structures. Outcomes of the structuration process can be the change and reproduction of the extant structures (Stones, 2005, pp. 85–86) and, in a SIDM context, the investment decision, for example. Stones (2005, p. 116) argues that the strength of SST is that it can translate the abstracted ontological level of Giddens’s structuration theory into the epistemological and methodological understanding by enabling moving to the meso level and further to the ontic level. The “structures-agents” relationship in the SID context cannot be explored at an abstract ontological level. There is a need to “slide down” through the ontological meso-level (groups of agents, which may be interpreted as “firm-level” in organisational studies) to the ontic level, which is the “level at which empirical evidence can be sought” (Stones, 2005, p. 76). The ontic level (individual agent)

enables researchers to understand the dispositions and practices of agents (Jack and Kholeif, 2007). In addition to SIDM studies by Elmassri *et al.* (2016) and Warren and Jack (2018), SST has been applied by a growing number of researchers to understand accounting practices (e.g. Jack and Kholeif, 2007; Coad and Herbert, 2009; Coad *et al.*, 2015; Feeney and Pierce, 2016; Adhikari and Jayasinghe, 2017). For example, Jack and Kholeif (2007) argues that the conflicts between management accountants' general disposition and their conjuncture-specific internal knowledge raise a conflict within the management accountants' beliefs about their role in the organisation after implementing an enterprise resource planning (ERP) system. Equally, Coad and Herbert (2009) found that the new control regime affects the financial empowerment of engineers with management accountants, which creates a conflict between the engineers' general dispositions and the external structural context and leads them to become receptive to changes in management accounting practices.

We adopt Stones's (2005, pp. 92–94) definition of an agent-in-focus as someone “in the midst of the action” and Stones's (2005, p. 92) categorisation of other individuals in the agents' network who shape and condition the structures that affect them as agents-in-context. The relationships between the agents in a social network are labelled position–practice relations (Stones, 2005, pp. 93–94), drawing on Giddens's notions of power. Position–practices concept helps position the external structures in the “structures-agents” relationship. Position–practices is an ontological concept that encourages the researcher to examine the relationships and networks between clusters of agents within a specific landscape under observation, for instance, a department of an organisation (Stones, 2005). Thus, position–practices provide an appropriate space to conceptualise the meso-level institutional link between structures and agency, as it bridges the abstracted ontology-in-general and substantive, empirically informed, ontic level (Stones, 2005).

The agents-in-focus are assumed to be managers operating at a divisional level, proposing strategic projects and making a case to the board of directors. Meanwhile, board-level directors are considered to be agents-in-context, shaping the decision environment and approving projects that meet prescribed criteria. This perception makes sense in the case of new product development or business development (new customer) projects. However, in the biggest strategic decisions – for example, those involving product group divestment or new market entry decisions – it is more likely to be the group of board level managers who will be more “in the midst of the action”. It could be argued that the agent-in-focus in SST research is simply the agent the researcher engages with as the centre of attention in the study. Indeed, in his later work, Stones (2015, p. 61) talks more about situated actors, thus, de-emphasising the distinction between agents. For this study, we have engaged with managers at multiple levels. We regard them all as situated actors because they are all actively engaged in SIDM practices within their organisations. Agency is exercised when “agents-in-focus” (Stones, 2005, p. 92) apply their knowledge, power and general dispositions to act in a way that reinforces or changes the structures in their context. In discussing how we can make sense of the world of situated actors, namely, agents-in-focus, Stones (2015, p. 61) comments:

It is very useful to differentiate between attempting to grasp the contextual field confronting an actor (*context analysis*) and attempting to grasp the process by which the actor combines their sense of this contextual field with deliberations or judgements about how to act (*conduct analysis*).

Strategic conduct analysis addresses hermeneutic ways in which agents draw upon their understanding of the structures of signification, domination and legitimation (Giddens, 1984; Stones, 2005).

Furthermore, [Harris et al. \(2016\)](#) developed in their conceptual paper an argument for using SST as a theoretical lens through which to view SIDM case research. They used SST to re-analyse four prior case-based studies that had originally used personal construct theory, actor-network theory, practice theory and grounded theory. They argued that these studies might have illuminated the behavioural aspects of SIDM practice more fully using SST, suggesting that “SST holds greater promise than either grounded theory or practice theory as it guides the researcher towards unpicking the complex social processes of human interaction” ([Harris et al., 2016](#), p. 1198). They viewed the interactions between the knowledgeable actors and the external structures that condition the decision environment and found that using these SST concepts is a useful way to improve our understanding of the active agency of those (people) involved in SIDM processes.

To sum up, we know quite a bit about the structure, processes and techniques applied in SIDM. We also know something about the psychology involved in managerial judgement, the role of agents and the use of intuition in SIDM, but these are inadequately linked. SIDM research has not been well-theorised in that there is no overarching theory of SIDM. We consider that SST has the scope to integrate these strands of SIDM research by focussing attention on structure and agency. Accordingly, we adopt an SST lens to analyse the interplay of agents and structures in SIDM-making and contribute to a more nuanced and integrative understanding of SIDM practice. Particularly, in investigating how managers exercise agency in SIDM, we focus on their knowledgeability of the contexts in which they and their organisations operate (organisation’s environment, strategy, CSFs and irresistible causal forces) and also investigate how managers’ views of the relative power positions influence their active agency.

3. Methodology

In this section, we present our qualitative research methodology and method, case selection, data gathering, used SST-concepts and data analysis.

We chose to use qualitative research methodology with field based multiple case study ([Yin, 2003](#)) to address how managers exercise agency in SIDs by drawing on their knowledgeability of the strategic context. The case study approach provided us the ability to develop rich, contextualised accounts of SIDM process ([Parker, 2012](#)). Furthermore, the chosen methodology, which focuses on the semi-structured interview data, enabled us to gain deeper understandings of organisational actors and their worlds ([Vaivio, 2008](#)). Usage of semi-structured interviews helped us to structure the interviews and gear them towards relevant topics, yet leaving room for the interviewees to elaborate on the topics on which they had more to say. The adopted interview model enhanced the validity and reliability of our data by facilitating the clarification of the questions, proposing further questions and returning to earlier questions and answers ([McKinnon, 1988](#)).

Concerning case selection, we aimed to select firms with investment projects large enough to provide a suitable strategic context. Our case selection criteria included industry sectors with sufficient capital intensity, evidence of recent major investment and access to the most knowledgeable people involved in the organisation’s SIDM process. Of the most recent SIDM case-based studies, [Huikku and Lukka \(2016\)](#) researched a single company in a Finnish setting, and [Elmassri et al. \(2016\)](#) interviewed participants in organisations in Egypt. We decided to build on these studies and select two companies from each geographic region so that the effects of regional context on SIDM practice were likely to affect each pair of cases similarly. We build on [Harris et al. \(2016\)](#) regarding the application of SST to case studies in SIDM. This paper reports findings from four cases: two Finnish and two Egyptian companies. While the Egyptian companies faced a turbulent economic and political

operating environment, the Finnish companies had a relatively stable country context. Within each country, we chose two organisations that operated within the same industry sector. This decision facilitated the analysis of SIDM practice within the same industry and national context (within each country) and across different industry sectors and national contexts (across countries).

The two Finnish case organisations operate in the food manufacturing sector. One is a large multinational company listed on the Finnish stock exchange (Firm A), and the other is a large family-owned business (Firm B). Both companies employ roughly 10,000 people. According to the executives interviewed, the average financial performance during 2013–2017 was considerably below shareholder expectations in Firm A and slightly above expectations in Firm B. Both companies have invested significantly in expanding their production capacity in their home country and abroad by building or developing major food-processing plants.

Both Egyptian case organisations operate within the light industrial manufacturing sector and have about 1,000 employees. One manufactures medical componentry (Firm C) and is listed on the Egyptian stock exchange. One of the company's main objectives is to export its products to the Middle East and Europe, so it follows the required international quality standards to access these markets. Thus, most of the company's SIDs aim to improve the company's products to compete in the Gulf and Western markets. The second Egyptian company (Firm D) is a family business that manufactures componentry for the security industry. It operates three factories and exports its products to around 30 countries in Africa, the Middle East and beyond. Like most Egyptian companies, Firm D has suffered from economic and social difficulties due to the extreme changes in the Egyptian political structure, resulting in lower sales in the domestic market. In 2014, the company's owners decided to adopt a new governance structure to separate ownership from management, believing this would increase productivity and value. According to the interviewees, the average financial performance during 2013–2017 was considerably below shareholder expectations in Firm C and almost aligned with owners' expectations in Firm D. Both companies have invested significantly in expanding their production capacity in Egypt recently.

Concerning data gathering, interviews were conducted with at least three managers with different discipline backgrounds and at varying levels of seniority in each case organisation (Appendix 1). Moreover, there was at least one interviewee with a finance role and background and at least one non-financial manager in each case. The interviewees held different positions in their company's management structure. Most would be categorised as top management, holding positions that place them in the C-suite in company management, which includes the chief executive officer (CEO), chief operations officer (COO) and chief financial officer (CFO). In each case, at least one interviewee was from the next level down, though they may still be categorised as senior management. All interviewees had extensive management experience including at least two years in their present organisation. All except 1 of the 14 interviews, lasting an average of an hour, were conducted on a one-to-one basis. The exception was one researcher interviewing two organisational members simultaneously in Firm A. One interviewee (CFO) in case D was interviewed twice, as covering all our questions on the first occasion was impossible. We also collected data from the companies' websites and documents – e.g. annual reports, strategy documents and corporate investment manuals – to triangulate evidence from the interviews (Vaivio, 2008).

This research focuses on how decision makers interact with various social actors and how their intuition and managerial judgement is socially constructed by different external structures. Our research design is underpinned by themes drawn from SST, such as the

agents' knowledgeability (i.e. their understanding of the strategic context in which they operate) and the structures or levers of action that either enable or constrain their practice (Stones, 2005). We have defined habitus as the general dispositions and instincts for how to behave and position–practice as the agent's power position in relation to others in the social network where the SIDM process occurs. Giddens (1984) suggests that agents exercise power through the deployment of material (allocative) and human (authoritative) resources. We are especially interested in how the concepts of irresistible causal forces and position–practice relations play out in SIDM.

A common set of questions guided the interviews to aid comparison. However, the interviews were only semi-structured to enable the interviewers to explore different aspects of SIDM practice according to the interviewee's role and experience. In our interviews, we addressed four question themes informed by the SST concepts (Stones, 2005) relevant to us:

- (1) agents' understanding of their strategic context? (agents' knowledgeability of the organisation's environment, strategy and CSFs);
- (2) agents' feelings about the SID(s) being made? (habitus, i.e. general dispositions, the role of independent causal influences and irresistible causal forces);
- (3) SIDM process and participants involved in the process? (active agency); and
- (4) agents' perceptions of their power position in relation to others in the SIDM process? (position–practice relations).

Themes a and b are related to agents' strategic context, and c and d to agents' strategic conduct. The interview themes, their relation to SST concepts and examples of specific interview questions can be found in Appendix 2. In addition, the interviewees were all asked to express what they saw as the top three CSFs in their organisations before explaining how these impacted their SIDM practice. The flexibility and subjectivity of the interview method enabled us to understand the agents' knowledgeability embedded in both strategic context analysis and strategic conduct analysis (Stones, 1991).

Furthermore, we asked each participant to speak about the most significant strategic investment project (a focal project) in their recent experience in terms of the process, who was involved and each actor's relative influence on the decision in their organisation. These focal projects included a meat processing plant (in Firm A), a grain grinding plant (Firm B) and major expansions in production capacity to serve broader markets in both Firm C and Firm D. The initial investment outlays for the Finnish focal projects in Firm A and Firm B were tens of millions of euros, and in the Egyptian Firms C and D a few million euros. Hence, we found all four case organisations had recently experienced a major investment in new or expanded production facilities designed to add capacity, which was considered strategic. This finding may be due to the interviewees' senior positions in their organisation and the industries they are in, where production capacity is both a constraint and an opportunity to create value. Accordingly, differences observed in interviewees' views of SIDM and key decision criteria may be better explained by their ways of viewing and dealing with SIDs rather than by project type. Prior literature (e.g. Harris *et al.*, 2009; Huikka *et al.*, 2018) has also reported that managers in manufacturing companies commonly perceive plant (site development) investments as their major strategic investments and have experience evaluating them.

The interviews were conducted in the participants' language (the Finnish firms in Finnish and the Egyptian firms in Arabic), to be later transcribed and translated into English. The local researchers (Finnish and Egyptian) first immersed themselves in the data in their language before selecting the most relevant paragraphs, words and phrases in

English to share with the research team. The researchers were very familiar with the local contexts and habits and fluent in English, ensuring that the transfer of meaning was secured in translating interview quotations and related issues (Feldermann and Hiebl, 2020).

Interview transcripts and other documents were analysed using SST themes such as agents' knowledge, habitus, irresistible causal forces and position–practice (Stones, 2005). Our thematic analysis involved continuous moving back and forth between the data and theories relevant to our study, flexibly combining the deductive and inductive research strategies (Dubois and Gadde, 2002). The researchers met continuously (both in person and online) to share their independently-derived interpretations of the data, and discuss the cases and analysis in detail and to extract meaning from those discussions that would reveal the subtlety required to analyse the SST concepts and facilitate a cross-case comparison. Thus, the findings and their interpretations presented here were reached through the collective interpretation of the researchers (Creswell, 2014). An ontic focus enables us to address holistically at the company level the influence of external structures, agents-in-context, position–practices, internal structures, agents-in-focus and power in the “structure-agent” relationship (Stones, 2005). It is worth understanding that even though our study can be characterised as cross-sectional rather than longitudinal, the interviewees were asked to describe the development of their investment processes. Specifically, they provided us with material for the whole investment process of the focal investment projects (from the initiation to commissioning and after that). In addition to private material, public material was available from the internet related to their focal investment projects. Accordingly, we could understand what kind of “structuration” occurred in their SIDM.

4. Case analysis

In this section, we present the analysis of our case studies following the framework outlined in Appendix 2. In sub-section 4.1, we consider the managers' knowledgeability of key external structures that we might expect to shape organisational SIDM practices, i.e. the organisational strategy, as reflected in its CSFs. We also explore agents' general dispositions regarding the relative importance of strategic and financial considerations in their strategic context. Next, in sub-section 4.2, we present the active agency and strategic conduct analysis and the position–practice relations in SIDM. Finally, in sub-section 4.3, we consider the emerging evidence of causal forces influencing SIDM, a more integrative SST concept. Tables 1 and 2 summarise the analysis across the four firms. These summaries facilitate a discussion of the conditions under which our findings are revealed – in other words, placing observed SIDM practice in the context of our case organisations' characteristics in a cross-case analysis.

4.1 *Agents' knowledgeability of the strategic context for strategic investment decision-making*

Stones (2005, p. 85) suggests that an agent-in-focus's conjuncture-specific knowledge of external structures (for example, market conditions in a particular industry) shapes the general disposition they draw on in exercising agency in practice, here in SIDM practice. Hence, our interviews explored the managers' knowledgeability of these external structures, which form conditions of action that influence agents-in-focus, i.e. those closest to the action (Stones, 2005, pp. 84–85). Table 1 shows what interviewees understood to be the characteristics of their business environment, the top three or four CSFs derived from their corporate strategy, their organisations' recent financial performance and their views on the relative importance of strategic factors in SIDM.

In Firm A, the top CSFs were new product development, strong brands and cost efficiency. Of note is limiting non-financial measures to market factors, which reflects their highly competitive business environment. This indicates that the interviewees' knowledgeability of

Table 1.
Agents' knowledge
of strategic context

Knowledge aspects	Case A – food	Case B – food	Case C – medical supplies	Case D – security products
Business environment	Mature niche market with low margins and fierce competition	Operates in several segments of the food sector – more flexible corporate environment	Hard to exist in local or regional markets – need to have competitive prices	Lower sales in domestic markets, so need to export more
Critical success factors (CSF)	Relatively stable corporate environment New product development (new products to markets) Strong brands ²	New product development Quality of products ³	Economic and social difficulties in home market due to political changes ¹ International quality standards	Increasing market share After-sales service (service quality) Maximising profit
Financial performance	Cost efficiency (high volume production) ⁴	Health and safety of personnel Environmental impact (sustainability) Strong	Minimising costs and competitive prices Strong relationships (e.g. banks) Updated technology	Good corporate governance ⁴ Quite strong
Strategic aspects	Weak “There is in fact one issue that should always be taken into account. The project must fit the strategy” – CFO	“The strategic link is a prerequisite (before) we even bother to look at financials” “The decision-making is more verbal than numeric” – CFO	Weak “Sure, product image and other long-term (strategic) objectives are important, but the financial figures are so important” – FD	“The key driver is the strategic objective (e.g. market share)” – CEO

Notes: ^[1]There was no market-based CSF expressed by participants in this case; ^[2]There was no quality-based CSF expressed by participants in this case; ^[3]There was no financial CSF expressed by participants in this case; ^[4]There were no further non-financial CSFs expressed by participants in this case
Source: Authors' own creation

Agency aspects	Case A – food	Case B – food	Case C – medical supplies	Case D – security products
Who gets involved in SIDM (internally)? External stakeholder influences	<p>“In this project we did have a dedicated team that worked about 3 years on planning and analysis” – COO</p> <p>“Raw material producers of this meat are major players . . . we conduct often colourful discussions with these producers. The Chairman of the Board is a meat producer too”, “then we have municipalities” – COO</p>	<p>“The BOD cannot approve projects without the [Investment] Forum’s recommendation” – Investment Director</p> <p>“Customers have influenced our strategy” – CFO</p> <p>“The actions of our competitors to invest in the same business have confirmed our understanding that there is demand for the new products” – Investment Director</p>	<p>“The Financial Director has the major responsibility . . . he has a crucial role in such decisions” – CFO</p> <p>“The government regulation related to health and safety are so important. Also, the degree of competitors’ technological facilities is an important key driver” – Production Director</p>	<p>“In addition to the Financial Director, employees are highly considered in making such a decision” – CEO</p> <p>“The governance regulations, all the board consider this issue in making such a decision. Also, the government rules and regulations are considered” – Financial Director</p> <p>“Considering the market conditions and the customers’ demand, competitors have a dominant role in this decision” – CFO</p> <p>“For this decision the CEO has the upper hand” – CFO</p> <p>“I control the investment appraisal processes, but for specific projects some directors have power over my authoritative position and I have to listen to them” – CEO</p> <p>“In this type of project customers and competitors are the key drivers to make a decision, in addition to other financial factors” – Financial Director</p>
Power positions	<p>“The roles of CEO, CFO, COO and Divisional Director were dominant within the company to drive the investment planning and get the project proposal approved” – COO</p>	<p>“You have to persuade the CEO. He has close contacts with the chairman of the BOD” and “the role of the BOD is dominant in these strategic issues. They set the strategy and give guidelines for the actions” – Investment Director</p> <p>“In our case the brand plays a major role as a non-financial criterion” – Investment Director</p> <p>“It has been clear that we want to grow in this business and in order to grow we have to invest, no choice” – CFO</p>	<p>“For this type of project, my department always has the upper hand . . . we support it, the board approve it” – Production Director</p>	
Independent or irresistible causal forces	<p>“The investment calculations looked very good. Nevertheless, the risk was enormous because this was one of the largest production facilities in Europe” – COO</p> <p>“We did not have the option not to invest” – CFO</p>			

Source: Authors’ own creation

Table 2.
Active agency and strategic conduct analysis

the firm's strategic context and CSFs had quite a strong shareholder wealth focus, which they suggested emanated from recent performance being perceived as poor relative to shareholder expectations.

With regard to the common main criteria in SIDM, the interviewees in Firm A seemed to agree that improving manufacturing productivity and meeting customers' requirements were two matters of utmost importance (leading to the overriding target of long-term profitability) when making SIDs. The company used the payback period method as its primary criterion and net present value and ROI as the secondary criteria in their SIDM. In line with the common main criteria in SIDM, improving manufacturing productivity played a major role as a target when the company considered the focal project (a major meat processing plant). Still, in this project, sales growth was also important. The current facilities were at the end of their useful life, and the plant replaced old facilities, increasing capacity. The investment was expected to produce about 50% direct labour cost savings, so there was a key financial benefit assumption for the project. The CFO explained:

We do not have a non-financial culture. It is really a financial-oriented approach. In this project, the business case ended up stating that this project was designed to increase our cost efficiency significantly.

More generally, nevertheless, the CFO also stressed the importance of considering strategic alignment in SIDM:

There is, in fact, one issue that should always be taken into account. The project must fit the strategy.

The COO continued similarly about the strategic alignment requirement:

We regularly kill investment projects that do not fit our strategy. They can be promising projects as such but not aligned with our strategy.

In addition, the COO indicated that the situation might not be quite as rigid and clear-cut. Even though strategic alignment and sufficient profitability were the prerequisites for the SID, they were not the only criteria affecting the investment decision. The managerial judgement also seems to play a major role:

First, we need to get the numbers straight to put it forward in the investment process. However, then the real decision is based on judgement. This is how it works.

The subtle difference in perceptions here between CFO and COO may indicate the "habitus" of a CFO as being more financially rooted, whereas that of the COO is based on a broader set of concerns, e.g. getting orders processed on time.

In Firm B, the CSFs perceived by our agents-in-focus were new product development, quality of products, health and safety of personnel and environmental impact (sustainability). Hence, they show more emphasis on non-financial aspects than Firm A, for example. The CFO explained how both financial and non-financial factors, including strategy, are considered in SIDM:

We have in our investment appraisal material all the standard investment profitability measures. However, the existence of the strategic link is a prerequisite that we even bother to look at those financial calculations. In this sense, the decision-making is more verbal than numeric. Hence, it is essential that in the appraisal, we can ensure that the investment realises our strategy.

The CFO described further that the discussions about the strategic investments are already beginning during the strategy formation process, emphasising the close linkage of strategy and strategic investments:

If we talk about critical success factors [...] In fact, we use terms [like] must-win battles or strategic initiatives. So, we think about how we want to develop a certain business and what is the direction and velocity. Simultaneously, when we talk about our strategic goals, we address the strategic investment projects required to achieve the goals.

In line with the above, the focal investment project in a major grain grinding plant to process raw materials was completely driven by the strategy. Changes in consumer megatrends were behind the strategic choice to strengthen this business and consequently pursue high growth and long-term profitability. The CFO explained the strategy formation phase and the focal investment decision:

It has been clear that we want to grow in this business, and in order to grow, we have to invest, no choice. So, the discussions have already been conducted in the strategy formation phase.

Furthermore, the Investment Director was also very knowledgeable about the influence of strategic context on SIDM and added comments about the close linkage of strategy and strategic investments:

There are very strong indications in the strategic material about the investments needed to support the achievement of the strategy. Hence, when the BOD accepts the strategy, their next idea is [...] 'hey, provide us the investment proposal'.

After ensuring the strategic alignment, the firm focuses on financial calculations. They use a payback period as their dominant measure, followed by the internal rate of return and economic value added. The Investment Director emphasised the role of financial measures by stating that "the financial business case is always number one". He adds, however, that non-financial criteria also play a role in SIDM, but these are typically considered separately beyond financial calculations in SIDM:

In our case, the brand plays a major role as a non-financial criterion. Also, megatrends and consumer trends. They are hard to monetise. We are very cautious about converting any uncertain softer [non-monetary] benefits into our investment calculations.

In Firm C, the participants had varying conceptions about the CSFs and their priorities. The Production Director said, "the quality of our products is the main factor we consider", whereas the CFO said, "sure, quality is important, but the cost figure is so important". The Financial Director said, "although all financial figures are important, strong relationships with banks and financial institutions are so important". Interestingly, the relative importance of the CSFs was perceived slightly differently by the interviewees in the firm. Regarding agents' knowledge, the interviewees show signs of information asymmetry, meaning that in SST terms, there may be variability in agents' knowledgeability about their firms' strategy or simply that their internalisation of external structures and personal preferences varies according to their habitus (values and beliefs). Plausibly, partly due to these, the strategic alignment of the strategic investments appears to be only loosely coupled.

Concerning SIDM, the firm strongly emphasises financial consideration, such as a short payback period, and appears to consider strategic aspects only in exporting decisions. One reason to highlight profitability from a very short-term perspective is obviously related to the recent weak financial performance of the company. The Financial Director explains the effect of the current competitive landscape on the SIDM:

We are working in [...] competitive local and regional/international markets. We should be able to compete if we have competitive prices; otherwise, it is hard to exist.

In line with their general strategic themes, the main target of their focal investment project (i.e. expansion of production capacity: plant and equipment for manufacturing medical equipment) was to increase export sales and lower manufacturing costs.

Firm D had also suffered from economic and social difficulties due to extreme changes in the Egyptian political structure, resulting in lower sales in domestic markets. Consequently, to maximise the profits, the firm's main strategic objective was to increase market share across the Middle East region, not just in the home market. Simultaneously, to support the firm's efforts to improve its profitability (being slightly below shareholders' expectations), they introduced a new governance structure (external structures in SST terms) that did not focus only on sales figures or a set of financial measures. High after-sales service quality was typically considered an important non-financial CSF.

Also, regarding SIDM, financial aspects were still greatly emphasised, but non-financials gained more prominence, as the CFO explained:

All indicators related to cost-benefit analysis with its broader meaning. This means both financial and non-financial indicators are considered [in SIDM].

Recent strategic investments included significant expansion in production capacity in the home country, and the focal project (new plant and equipment for manufacturing locks, including new products) was one representation of these. The CEO described the main driver and criteria behind this investment:

The key driver [of the focal investment] is the company's strategic objectives. For example, one of the strategic objectives is to achieve a steady increase in market share.

The firm used NPV as a calculative method to assess the profitability of its strategic investments. In the focal investment, profitability was driven by expected sales growth. Also, improved product image was considered a decision criterion in SIDM but was not incorporated into the NPV calculation. In this focal project and Firm D's other major investments, there seems to be a tight alignment between them and the strategic objectives, and the management is very knowledgeable about their objectives.

Taken together, there appear to be similarities and differences in the perceived CSFs within and across the above four firms. There seems to be an emphasis on products, markets and brands in all companies. Accordingly, they seemed to have shared understandings when it comes to both the customer and market dimensions of company performance. Also, when comparing further the agents' knowledgeability of CSFs, the firms clearly articulated financial emphasis on costs or profits as their important CSFs in all but Firm B. It may be that Firm B, having recently performed better than expected, could afford to be less financially driven. This organisation's focus is likely also to reflect its family ownership and lack of stock market pressure, which enables managers to take more of a triple bottom line approach. The linkage of strategic objectives (CSFs) and strategic investments was tight in all firms except Firm C, and the agents-in-focus were very knowledgeable that this linkage is a prerequisite for investing. Similarly to the case company presented in [Jørgensen and Messner \(2010\)](#), managers had varying conceptions about the CSFs and their priorities in Firm C. This is potentially explained by information asymmetry within the firm, agents' varying knowledgeability of strategy (including CSFs) or personal preferences based on their habitus.

In Firms A, B and D, the agents were very knowledgeable about strategic objectives forming the basis for SIDM and alignment between these being a prerequisite for a strategic investment. In these firms (A, B and D), however, it was not enough just to show the alignment of the proposal with the strategy to proceed with the investment. Their additional

requirement was that financial calculations showed sufficient profitability for the investment. In Firm C, SIDM was based on financial evaluation (except for certain export investments).

Furthermore, regarding the agents' views on the relative importance of financial factors *vis-à-vis* non-financial factors in SIDM, there are variations between the firms. Firms A and C emphasised financial criteria; non-financial measures were not typically used in SIDM. This appears to be related to both firms' low profitability recently. The lack of non-financial culture was well-known among the managers in these companies and guided them to plan only investment projects with sufficient (calculable) profitability. The better-performing firms, B and D, also used non-financial criteria more often, even though they primarily emphasised the importance of financial feasibility. These findings align with Carr *et al.* (2010), suggesting that agents in companies under financial pressure focus on financial criteria and in better-performing companies, they more often consider non-financial criteria in their SIDM. Our findings also align with survey findings (Huikku *et al.*, 2018, 530) that suggest there is more emphasis on pre-decision controls when firms are under financial pressure.

To sum up, the agents' stocks of knowledge allowed them to appreciate the strategic context of their organisations. In the following sections, we explore how this knowledge provides (or does not) the rationales for investment decisions.

4.2 Active agency and strategic conduct analysis

To scrutinise further the active agency aspects, we asked the interviewees who get involved in SIDM internally and if external stakeholders influenced the SIDs. In addition, we addressed managers' perceptions of power positions in SIDM. With regard to the Finnish firms, in Firm A, there was evidence of multiple managers being involved in SIDM, but also a strong influence from meat producers through the chair of the board. Therefore, in Firm A, there is more influence from the supply side and in Firm B from the customer and competitor side (i.e. external stakeholders). Selected quotes to illustrate these connections are shown in Table 2.

Regarding the position practices in Firms A and B, the managers are well aware of their formal power positions when speaking about the general SIDM process and the focal projects. This awareness is explicitly manifested in strict approval limits assigned to different hierarchical levels. We were told that the board approves all the major SIDs of directors and that top managers always get involved early in the planning of SIDs. The involvement of a committed, influential individual (a project champion) usually plays a major role in selling SIDs to the top managers during the planning phase. These managers generally – but not always – accept an SID proposal where the expected financial return meets the minimum requirements. According to the interviewees in both companies, they sometimes accept SIDs whose expected financial return falls below the minimum financial requirements. However, these kinds of investments are often related to environmental or social outcomes and so, consequently, their degree of “strategic alignment” can be considered ambiguous.

The COO of Firm A spoke about the stakeholders in the focal project in terms of internal stakeholders (mainly sales, marketing and product development managers, with no mention of employees) and external stakeholders:

The raw material producers of this meat are major players. They simultaneously also partly own us. They are a very important stakeholder group. Then, we have the municipalities, health and safety authorities, and politicians.

For a company with such a financial focus, a wider group of people appears to be involved. However, the dominant group is still the shareholders. The two main drivers of the project appeared to be the need to replace an existing facility reaching the end of its useful life and the improved cost efficiency (mostly labour cost savings) anticipated from the new facility. It seems odd that where one of the key drivers of the project was labour cost savings, the voice of the workforce or the HR department was absent in our interviewees' accounts of SIDM.

The COO commented about the main players in the focal investment:

The roles of CEO, CFO, COO and Divisional Director were dominant within the company to drive the investment planning and get the project proposal approved.

When asked if there were any dissenting voices or if all parties agreed, the CFO said:

Contrary to my earlier experiences in other firms and in this firm, it appeared clear that we did not have the option not to invest! Everybody was for it [...] this was an investment with a very strong business case. This is one reason why there was no opposition.

In Firm B, the investment director explained the influence of competitors on the focal project:

The actions of our competitors to invest in the same business have confirmed our understanding that there is demand for the new products.

It appears that the Firm B managers' business case for this project is partly justified by the actions of competitors, with the rationale that if they are making similar investments, they must think there is growth potential in the market, too. This example shows how agents-in-context, such as competitors, can influence agents-in-focus thinking in their SIDM.

In Firm B, the senior manager responsible for investment management identified the board of directors, specifically the CEO and CFO, as the dominant parties regarding SIDM because they set the strategy. In terms of the most powerful, he said, "you have to persuade the CEO. He has close contact with the chairman of the board". However, he did not recall "anybody opposing this idea to invest". The CFO said about this focal investment project:

There has not been any direct influence from stakeholders because our strategy has driven this so strongly.

The Egyptian firms also discussed the aspects related to the influence of external stakeholders and the involvement of different employees in SIDM and their power positions. In line with Firm B, both Firms C and D emphasised the significant role of competitors influencing their focal investments. The CFO of Firm D said:

Considering the market conditions and the customers' demand, competitors have a dominant role in this decision.

More generally, beyond these focal projects, both Firms C and D brought up the influence of governmental regulations (e.g. about health and safety) in their SIDM. Firm D also pinpointed their corporate internal governance rules and regulations related to SIDM in their decision-making.

Concerning involvement and responsibilities in SIDM, the Senior Manager (Production) of Firm C deviated slightly from the focal project when he described their new product development more generally:

Marketing always asks to develop new products. However, as the production director, my technical knowledge is always considered in deciding whether we are able to do that or not.

He considered his department “always has the upper hand” in projects that rely upon technical expertise. However, in relation to building projects, he thought that external parties were also influential, explaining that “government regulations regarding health and safety are so important” and “competitors” technological facilities’ act as benchmarks.

While the CFO said the Financial Director had a crucial role in SIDM, the Financial Director himself noted a distinction between who was *responsible* and who *dominated* the decision process:

Inconsistent with other companies where I have worked, this decision is mainly my responsibility, but the CEO, informally, is the dominant person.

It is not clear how the interviewee understood that difference. Still, both Giddens and Stones associate domination with influential political power, while responsibility may be more associated with accountability for resources and, thereby, with the structure of legitimation. Looking together at the perceptions of the Senior Manager (Production), CFO and Financial Director, it seems that different parties dominate different types of projects. Still, the financial managers play a crucial role in taking responsibility for SIDM. This role fits with the nature of Firm C’s financially dominated CSFs.

In Firm D, the CEO described his position in relation to SIDM as follows:

You might think that as I am the CEO [...] I have a top position in the company. This [description] might be correct in terms of responsibilities. However, in terms of [SIDM] practise, it depends on the project’s context [e.g. type, size, value in terms of money]. I control the investment appraisal processes, but for specific projects, some directors have power over my authoritative position, and I have to listen to them.

The CFO of Firm D echoed this by saying:

The position of a person is not the same every time; the position is based on the person’s networks [...] the personal ability [...] to influence a decision through both formal and informal ways, also how people trust this person.

This also came through in the evidence from Firm C, where both the CFO and the Production Director thought that the power position exercised in SIDM related to the specific type of project and the person’s experience relevant to that project type. In some projects, the Production Director said he had his own views and explained accordingly about the role of non-financial aspects in SIDM: “not only numbers matter, in making decisions [...] includes also my experience, perceptions and sometimes my feelings”. Also, [Grant and Nilsson \(2020\)](#) show the important role of managers’ experience and expertise in shaping firms’ SIDM.

There seems to be a distinction between those thought to dominate the SIDM process and those who may have a position of responsibility for the process but do not feel they have the dominant influence on decisions ([Table 2](#)). We will explore this further in the next sections.

4.3 Integrative strong structuration theory concept: irresistible causal forces

In this section, we present and discuss the emergence of irresistible causal forces that seem to influence SIDM greatly.

In Firm A, the CFO said, “We did not have the option not to invest”, indicating a lack of agency in the decision for someone in such an important role. The focal project was also already included in the company’s strategic plans. Furthermore, it seems that the focal project in Firm B was completely driven by growth potential and long-term profitability expectations, so a combination of market and financial factors. The CFO of Firm B said:

Ensuring strategic alignment as such plays a major role in evaluation. We ponder, ‘Are we going to grow according to our strategy in this segment, or are we in a cash cow mode?’ Then, it is

another story that we occasionally try to assess how this and that investment will influence certain KPIs. The measures are then used when we have commissioned the investment, and by them, we can ensure that we are heading towards our strategic goals.

He added further:

It has been clear that we want to grow in this business, and in order to grow, we have to invest, no choice.

The decision to invest was *de facto* made already in the strategy formation phase and approved by the board of directors. Accordingly, the firm executives had to take the decision for granted.

It seems that in speaking about these two strategic projects of tens of millions of euros already included in the firms' strategic plans, the interviewees in both firms were adopting the mindset that they could not reject these project proposals. This could be a sign of what [Stones \(2005, 111\)](#) calls "irresistible causal forces", where agents feel powerless to resist, even when they might have had the ability to do so. In other words, irresistible causal forces apply where agents have a choice. So they may have the "ability to do otherwise", to resist social pressure, but feel they do not have the power to resist, so they choose not to. Certainly, in Firm A, the focal project is perceived as taking on its own unstoppable life and becoming a powerful force for change.

In the two Egyptian cases, there was less cost sensitivity but more sales sensitivity as local markets struggled, and exports had become critical to the firms' sustainability. Hence, it was difficult for the agents-in-focus in these firms to resist investment ideas justified by the promise of profitable sales growth. The Production Director of Firm C described the reality of the current challenging market situation and, consequently, the pressure to pursue the focal investment to stay alive as a company:

International customers in the Gulf and European countries are the drivers for this decision; they always put us under pressure to develop our products regularly.

However, in Firm D, there was a hint that the Financial Director may have felt a tension between personal preferences (that may echo the CFO habitus in Firm A) and conjuncturally-specific knowledge, as he explained:

Recently [after adopting a new governance system], I have been asked to consider all relevant financial and non-financial indicators [e.g., employees] in the investment appraisal reports.

The way this comes across, the new governance structure that was recently introduced may not yet be embedded in the Financial Director's general disposition, and he appears to be struggling to adopt and internalise the new structures implemented at the CEO's request. This new governance structure may be seen as an irresistible causal force that the agent perceives as an external structure, which has to be accepted.

Firm D's CFO also spoke about using cost-benefit analysis, "with its broader meaning" to embrace both financial and non-financial indicators. Perhaps he had internalised the new structures more than the Financial Director, possibly due to a closer working relationship with the CEO. The CEO spoke about employees who "should be happy to work in a comfortable place" and clients' satisfaction as well as financial figures being important, so it seems the more senior (dominant) the agent, the more likely they are to espouse a broader approach.

With regard to the construction of a new factory (the focal project), the CEO of Firm D explained the background and obligatory nature of the investment by emphasising the current strategy, as did the CFO of Firm B:

This project was appraised differently from other minor investment decisions. There was an agreement to approve this project, as the senior team knew that the business owners needed to expand through constructing this new factory. This expansion is one of the long-term strategic objectives; in our meeting, we discussed how, when and where we will build the new factory rather than WHY we should build it.

In SST terms, the examples reviewed above fit with [Stones's \(2005, 111\)](#) notion of irresistible causal forces, where agents in different levels of organisations may feel powerless to resist external structures, even if they may have been inclined to. It also shows that business owners or boards of directors still act as agents-in-context to exert a strong influence on SIDM, even when they appoint business managers (in this case, the CEO) to manage day-to-day operations and take responsibility for SIDM. It also shows how conjuncture-specific knowledge of external structures (agents' knowledgeability about what the business owners or board of directors want to see) may outweigh agents' general dispositions or personal views in active agency.

5. Discussion

SST identifies two types of external structures: independent causal influences (which are beyond an agent's control) and irresistible causal forces (where an agent might have the capacity to resist) ([Stones, 2005](#)). Based on our data, managers' knowledge about irresistible causal forces and related position–practice relations appear to play a major role in shaping SIDM. Accordingly, this section discusses these aspects further and specifically addresses why agents did not resist investment proposals. [Stones \(2005, 114–115\)](#) suggests that to be able to resist, an agent would need adequate power, adequate knowledge about alternatives and their consequences and adequate distance to a particular external structure. Both [Elmassri et al. \(2016\)](#) and [Warren and Jack \(2018\)](#) show in the SIDM context examples about situations where agents have the potential to resist causal forces. In [Elmassri et al. \(2016\)](#), employees resist managers, and local managers defy their superiors in MNCs. In [Warren and Jack \(2018\)](#), managers in energy-generating firms could resist energy regulators by drawing on their knowledge about external structures, such as resources available to them as providers of capital, and the presentation of evidence in the form of capital budgets.

The agents-in-focus faced numerous external pressures to consider while planning and proposing new investments. Our interviewees appeared to bow to more external stakeholders, including business owners, customers, competitors, governmental health and safety authorities, the board of directors and the chair and felt less able to resist. For our two Egyptian cases (Firms C and D), this partly contradicts [Elmassri et al.'s \(2016, 165\)](#) findings in the same country context, where “the degree of uncertainty provided greater space for intuition, experience and judgement”. We were initially surprised by this finding but understand that most of the Egyptian interviewees in our study felt less able to “do otherwise” to prioritise the employees' voices due to their concern for their job security ([Stones, 1991](#)). Hence, their general dispositions may previously have matched those of interviewees in [Elmassri et al.'s \(2016\)](#) study. Still, their habitus has changed over time ([Stones, 2005, 88](#)) because of their knowledge of changes in the political context, where employees generally now have less voice. Our findings may also be affected by the later timing of the study; the social, political and economic uncertainty was no longer as extreme in Egypt as it was in [Elmassri et al. \(2016\)](#) during and immediately after the revolution.

In our two Finnish cases, we anticipated, based on prior studies like [Carr et al. \(2010\)](#), that SIDM behaviour would differ from that in the Egyptian cases. This is attributed to the differences in the business environment, with Finland's stability as a developed country contrasting with Egypt's political turmoil as a less-developed country. These aspects of the

strategic context are independent causal forces that individual actors cannot hope to change (Stones, 2005). However, we found more similarities than we expected regarding the irresistible causal forces and drivers of SIDs, perhaps due to our use of the SST lens. In both countries, there were external driving forces (i.e. owners, customers, competitors, authorities and board of directors), and the agents did not necessarily see themselves as able to resist such pressures. Even in Firm C, where the Production Director perceived himself or at least his department as having quite a strong power position, he also felt unable to resist pressure from “international customers”. This sense of a lack of personal freedom (Giddens’s notion of agency) to exercise political power (domination) to influence SIDs was more widespread than we expected based on prior SIDM studies (Elmassri *et al.*, 2016; Huikku *et al.*, 2018).

Within Firms A and B, the board of directors was the dominant external force to agents-in-focus. The formal structure dictates the power and responsibility in SIDM, and agents-in-focus are well aware of this, i.e. they have the ultimate power over the authoritative (human) and allocative (material) resources (Stones, 2005). All the major investments have to be approved by the board of directors, the investments are *de facto* already decided in connection with the strategy formation process, and top management is already involved with the investments early in the planning of SIDs. Accordingly, the management plans and executes the investments rather than making the decisions *per se*. In Firms C and D, the interviewees did not perceive power positions related to position–practices within the companies as clearly as in Firms A and B, and the board of directors did not play as dominant role in SIDM in Firms C and D, for example. In firms C and D, those managers thought to have responsibility for SIDM do not necessarily perceive that they have power over the process. The relative power position of the individual within the formal management hierarchy seemed less important than the agent’s relevant knowledge and experience when it came to managerial judgement in SIDM. However, the degree to which their “gut feelings” or instincts were allowed to override the dominant financial decision criteria applied to SIDs was not so obvious, if it existed at all. The financial analysis measures, especially net present value and payback period measures, were seen as external structures that were internalised routines and unlikely to change. This finding suggests that even where non-financial measures appear in the CSFs and agents’ internal structures, agents were relatively constrained in exercising agency in SIDM. They did not feel they had sufficient power to resist external structures and stop a project from going ahead, even if they would have preferred to take less risk, for example. In addition, they did not necessarily have adequate knowledge of alternative courses of action for the firm, or to be in a position to evaluate these consequences (Stones, 2005). They did not have sufficient distance to an external structure in question, either.

Our evidence partially supports Garbuio *et al.* (2015, p. 363) finding on the value of “disinterested dialogue” in SIDM. There is plenty of evidence of dialogue, but the extent to which top managers play the “disinterested” role is unclear. While there may be some evidence of having a “fact-based transparent discussion that addresses a strategic decision” (Garbuio *et al.*, 2015, p. 363), our interviewees did not mention, for example, the involvement of any non-executive directors in the dialogue. We found evidence that participation in the dialogue was “based on their relevant skills or experience”, for example, financial or production expertise, and to some extent that managers were “able to voice conflicting opinions”. Still, this is less clear in Firms B and D, where we found stronger evidence of irresistible causal forces. Stones (2005, 112) captures this notion as when “external causal influences encounter the wants, desires and principles of agents, resulting in a pragmatic trimming of the latter”. In Elmassri *et al.* (2016), managers wanted to listen more to the employee voice and keep people employed by choosing to “do otherwise”, accepting projects

that would not necessarily maximise shareholder value (i.e. had a negative net present value). However, interviewees in our study did not show this type of “resistance”. Perhaps they were acting more in self-interest, wishing to keep their jobs, or they genuinely felt less empowered to go against the causal forces of, for example, the business owners or board of directors (cf. [Coad and Glyptis, 2014](#)). Following the initial disruption of the revolution, they may feel less personally empowered to resist.

Taken together, and partially contrasting with [Elmassri et al. \(2016\)](#) and [Warren and Jack \(2018\)](#), we find no evidence suggesting that the agents-in-focus might have had an opportunity to act differently. Instead, we identified numerous irresistible causal forces and discussed potential reasons explaining the agents’ behaviour.

6. Concluding remarks

[Harris et al. \(2016\)](#) advocate using an SST approach in SIDM research to enhance understanding of managers’ contextual knowledge, the dynamics of socio-political structures guiding decisions and individuals’ power within organisations to accept or challenge the assumptions underlying SIDs. Consequently, the broad purpose of this study was to explore how managers exercise agency in SIDs by drawing on their knowledgeable ability of the strategic context. According to SST, an agent-in-focus’s conjuncture-specific knowledge of external structures has the potential to shape their general disposition when exercising agency in SIDM ([Stones, 2005](#)). We investigated first how agents’ knowledge of the external structures, such as firms’ strategy (including the CSFs derived from it), alignment between strategy and SIDM and agents’ views on the relative importance of financial factors (*vis-à-vis* non-financial factors) influence SIDM. In addition, we addressed how the current business environment and their organisations’ recent financial performance potentially affect SIDM. Then, we investigated the irresistible causal forces in SIDM and why agents do not resist them. Finally, we studied how agents’ views of the relative power positions influence their active agency and, hence, shape SIDM practices. Our study builds on [Harris et al. \(2016\)](#) by operationalising their recommendations to use an SST lens to view case evidence in four case studies.

Our main contribution to the scarce SIDM literature about agents’ knowledgeable ability of their external structures ([Elmassri et al., 2016](#); [Warren and Jack, 2018](#)) is to shed light on the irresistible causal forces and power positions associated with them. We contribute to the literature by identifying irresistible causal forces and discussing why agents feel unable to resist them. We identify a board of directors, alignment with strategy, owners’ expectations, entrenched financial analysis tools and various aspects of the operating environment (such as competitors’ technologies, economic conditions and customer demands) as relevant irresistible causal forces.

Regarding position–practice relations ([Stones, 2005](#)), we demonstrate that the importance of the perceived power position of agents involved in the SID process, specifically finance professionals, and the consequent lack of challenge some major project proposals encounter, may play a major role as irresistible causal forces. Even though we interviewed senior managers in the organisational hierarchy, we found that they seldom felt especially powerful in influencing the SID outcome. Indeed, the nature of their participation may take the form of going along with a project proposal in principle and working on the details of when and how it could be implemented rather than engaging in a challenging debate about whether it should go ahead. They seem complicit in accepting and reinforcing causal forces embedded in external structures (cf. [Coad and Glyptis, 2014](#)). In congruence with [Stones’s \(2005\)](#) theoretical suggestions, we find that lacking any of the three properties (power, knowledge about alternatives or distance) potentially explains why agents’ ability to resist

can diminish. Our findings point to the importance of understanding the business context (in SST terms, the external structures and the agents-in-context) holistically when examining SIDM practices. We argue that irresistible causal forces have the potential to play an even stronger role in shaping SIDs than prior literature has suggested.

In addition to our main contribution, and to the best of our knowledge, we extend prior literature by being the first to explicitly discuss how agents' knowledgeability about CSFs derived from strategy shapes firms' SIDM. Moreover, in studying how agents-in-focus draw upon their knowledge of the organisation's context when exercising agency, we add to [Elmassri et al. \(2016\)](#) and [Warren and Jack \(2018\)](#) by providing company-specific empirical, ontic-level evidence and also addressing particular SIDs.

In congruence with [Harris et al. \(2016\)](#), we maintain that by using SST concepts ([Stones, 2005](#)), a more holistic view of SIDM can be provided by considering the interactions between the elements of agency and structure. Researchers can further enrich our understanding of managers' interpretations and reactions to external structures.

In this sense, we argue that using SST concepts has both theoretical and practical implications in the context of SID. SST enables the researcher to drill down into the "ontic" level to empirically explore in-depth the complex interrelationships between various agents and structures which, arguably, fits the SID context. Specifically, the concepts related to the knowledgeability of managers (agents-in-focus), irresistible causal forces and position–practice relations could help researchers focus on the role of power asymmetries and resistance in SIDM and consequently extend our study.

We see the scope for a more nuanced research approach to enhance the elicitation of SST perspectives on agents' habitus and knowledgeability by using stimulated recall and cognitive techniques to delve further into agents' mental models and perceived powers to resist, rather than using interview techniques alone ([Harris, 1999](#); [Dempsey, 2010](#)). Thus, we suggest that future case studies of SIDM may fruitfully use a combination of SST with theories of cognition drawn from psychology (e.g. [Wood and Bandura, 1989](#); [Peters, 1993](#); [Emmanuel et al., 2010](#); [Evans and Stanovich, 2013](#)). Furthermore, we noticed that high-level managers heavily involved with major investment projects do not necessarily know well the CSFs of their firms. In addition, managers may have varying conceptions about the CSFs and their priorities. It would be worth studying how these may jeopardise the alignment of strategy and SIDs, a link emphasised to be a cornerstone of SIDM ([Slagmulder, 1997](#)).

Note

1. In [Elmassri et al. \(2016\)](#), employees had the potential to resist managers and local managers their superiors in MNCs. In [Warren and Jack \(2018\)](#), managers in energy-generating firms could resist energy regulators based on their knowledge of the context (e.g., about the resources available to them as providers of capital and the presentation of evidence in the form of capital budgets). See also other accounting studies addressing irresistible causal forces: [Coad and Herbert \(2009](#), interaction between management accountants and engineers), [Feeney and Pierce \(2016](#), new product development), and [Jack and Kholeif \(2007](#), budgeting/ERP).

References

- Abdel-Kader, M.G. and Dugdale, D. (1998), "Investment in advanced manufacturing technology: a study of practice in large U.K. companies", *Management Accounting Research*, Vol. 9 No. 3, pp. 261-284.
- Adhikari, P. and Jayasinghe, K. (2017), "Agents-in-focus and agents-in-context: the strong structuration analysis of Central government accounting practices and reforms in Nepal", *Accounting Forum*, Vol. 41 No. 2, pp. 96-115.

- Agor, W.H. (1986), "How top executives use their intuition to make important decisions", *Business Horizons*, Vol. 29 No. 1, pp. 49-53.
- Alkaraan, F. and Northcott, D. (2006), "Strategic investment decision-making: a role for emergent analysis techniques?", *The British Accounting Review*, Vol. 38 No. 2, pp. 149-173.
- Arnold, G.C. and Hatzopoulos, P.D. (2000), "The theory-practice gap in capital budgeting: evidence from the United Kingdom", *Journal of Business Finance and Accounting*, Vol. 27 Nos 5/6, pp. 603-626.
- Bardolet, D., Fox, C. and Lovallo, D. (2011), "Corporate capital allocation: a behavioural perspective", *Strategic Management Journal*, Vol. 32 No. 13, pp. 1465-1483.
- Bourdieu, P. (1977), *Outline of a Theory of Practice*, Cambridge University Press, Cambridge.
- Bower, J.L. (1970), *Managing the Resource Allocation Process*, Harvard Business School, Boston.
- Bower, J.L. (2017), "Managing resource allocation: Personal reflections from a managerial perspective", *Journal of Management*, Vol. 43 No. 8, pp. 2421-2429.
- Brunzell, T., Liljebloom, E. and Vaihekoski, M. (2013), "Determinants of capital budgeting methods and hurdle rates in Nordic firms", *Accounting and Finance*, Vol. 53 No. 1, pp. 85-110.
- Bryson, J.M. and Bromiley, P. (1993), "Critical factors affecting the planning and implementation of major projects", *Strategic Management Journal*, Vol. 14 No. 5, pp. 319-337.
- Butler, R., Davies, L., Pike, R. and Sharp, J. (1993), *Strategic Investment Decisions: Theory, Practice and Process*, Routledge, London.
- Carr, C. and Harris, S. (2004), "The impact of diverse national values on strategic investment decisions in the context of globalization", *International Journal of Cross Cultural Management*, Vol. 4 No. 1, pp. 77-99.
- Carr, C., Kolehmainen, K. and Mitchell, F. (2010), "Strategic investment decision-making practices: a contextual approach", *Management Accounting Research*, Vol. 21 No. 3, pp. 167-184.
- Clancy, D.K. and Collins, D. (2014), "Capital budgeting research and practice: the state of the art", in Epstein, M.J. and Lee, J.Y. (Eds), *Advances in Management Accounting*, Emerald, Bradford, Vol. 24, pp. 117-161.
- Coad, A. and Glyptis, L. (2014), "Structuration: a position-practice perspective and an illustrative study", *Critical Perspectives on Accounting*, Vol. 25 No. 2, pp. 142-161.
- Coad, A. and Herbert, P. (2009), "Back to the future: new potential for structuration theory in management accounting research?", *Management Accounting Research*, Vol. 20 No. 3, pp. 177-192.
- Coad, A., Jack, L. and Kholeif, A. (2015), "Structuration theory: reflections on its further potential for management accounting research", *Qualitative Research in Accounting and Management*, Vol. 12 No. 2, pp. 153-171.
- Creswell, J.W. (2014), *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, Sage Publications, London.
- Daft, R.L. and Lengel, R.H. (1986), "Organizational information requirements, media richness, and structural design", *Management Science*, Vol. 32 No. 5, pp. 554-571.
- Dempsey, N.P. (2010), "Stimulated recall interviews in ethnography", *Qualitative Sociology*, Vol. 33 No. 3, pp. 349-367.
- Dubois, A. and Gadde, L.-E. (2002), "Systematic combining: an abductive approach to case research", *Journal of Business Research*, Vol. 55 No. 7, pp. 554-560.
- Eisenhardt, K.M. (1989), "Making fast strategic decisions in high-velocity environments", *Academy of Management Journal*, Vol. 32 No. 3, pp. 543-576.
- Elbanna, S. and Child, J. (2007), "Influences on strategic decision effectiveness: development and test of an integrative model", *Strategic Management Journal*, Vol. 28 No. 4, pp. 431-453.
- Elmassri, M.M., Harris, E.P. and Carter, D.B. (2016), "Accounting for strategic investment decision-making under extreme uncertainty", *The British Accounting Review*, Vol. 48 No. 2, pp. 151-168.

- Emmanuel, C., Harris, E. and Komakech, S. (2010), "Towards a better understanding of capital investment decisions", *Journal of Accounting and Organizational Change*, Vol. 6 No. 4, pp. 477-504.
- Evans, J. and Stanovich, K.E. (2013), "Dual-process theories of higher cognition: Advancing the debate", *Perspectives on Psychological Science*, Vol. 8 No. 3, pp. 223-241.
- Feeney, O. and Pierce, B. (2016), "Strong structuration theory and accounting information: an empirical study", *Accounting, Auditing and Accountability Journal*, Vol. 29 No. 7, pp. 1152-1176.
- Feldermann, S.K. and Hiebl, M.R.W. (2020), "Using quotations from non-English interviews in accounting research", *Qualitative Research in Accounting and Management*, Vol. 17 No. 2, pp. 229-262.
- Garbuio, M., Lovallo, D. and Sibony, O. (2015), "Evidence doesn't argue for itself: the value of disinterested dialogue in strategic decision-making", *Long Range Planning*, Vol. 48 No. 6, pp. 361-380.
- Giddens, A. (1979), *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*, Macmillan, London.
- Giddens, A. (1984), *The Constitution of Society*, Polity Press, Cambridge.
- Grant, M. and Nilsson, F. (2020), "The production of strategic and financial rationales in capital investments: Judgments based on intuitive expertise", *The British Accounting Review*, Vol. 52 No. 3, pp. 1-18.
- Haka, S.F. (2007), "A review of the literature on capital budgeting and investment appraisal: past present and future musings", in Chapman, C., Hopwood, A. and Shields, M. (Eds), *Handbook of Management Accounting Research*, Elsevier, Amsterdam, Vol. 2, pp. 697-728.
- Harris, E. (1999), "Project risk assessment: a European field study", *The British Accounting Review*, Vol. 31 No. 3, pp. 347-371.
- Harris, E. (2014), "Feel the risk: strategic investment decisions in an uncertain world", in Otley, D. and Soin, K. (Eds), *Management Control and Uncertainty*, Palgrave Macmillan, Basingstoke, pp. 162-177.
- Harris, E., Emmanuel, C. and Komakech, S. (2009), *Managerial Judgement and Strategic Investment Decisions*, Elsevier, Oxford.
- Harris, E.P., Northcott, D., Elmassri, M.M. and Huikku, J. (2016), "Theorising strategic investment decision-making using strong structuration theory", *Accounting, Auditing and Accountability Journal*, Vol. 29 No. 7, pp. 1177-1203.
- Hensman, A. and Sadler-Smith, E. (2011), "Intuitive decision making in banking and finance", *European Management Journal*, Vol. 29 No. 1, pp. 51-66.
- Hickson, D.J., Butler, R.J., Cray, D., Mallory, G.R. and Wilson, D.C. (1986), *Top Decisions: Strategic Decision-Making in Organizations*, Jossey-Bass, San Francisco.
- Hitt, A. and Tyler, B. (1991), "Strategic decision models: Integrating different perspectives", *Strategic Management Journal*, Vol. 12 No. 5, pp. 327-351.
- Huikku, J., Karjalainen, J. and Seppälä, T. (2018), "The dynamism of pre-decision controls in the appraisal of strategic investments", *The British Accounting Review*, Vol. 50 No. 5, pp. 516-538.
- Huikku, J. and Lukka, K. (2016), "The construction of persuasiveness of self-assessment-based post-completion auditing reports", *Accounting and Business Research*, Vol. 46 No. 3, pp. 243-277.
- Jack, L. and Kholeif, A. (2007), "Introducing strong structuration theory for informing qualitative case studies in organization, management and accounting research", *Qualitative Research in Organizations and Management: An International Journal*, Vol. 2 No. 3, pp. 208-225.
- Jørgensen, B. and Messner, M. (2010), "Accounting and strategizing: a case study from new product development", *Accounting, Organizations and Society*, Vol. 35 No. 2, pp. 184-204.
- Kingsley, K.A. and Reed, P.N. (1991), "Decision process models and organizational context: level and sector make a difference", *Public Productivity and Management Review*, Vol. 14 No. 4, pp. 397-413.

- Lukka, K. and Vinnari, E. (2014), "Domain theory and method theory in management accounting research", *Accounting, Auditing and Accountability Journal*, Vol. 27 No. 8, pp. 1308-1338.
- McKinnon, J. (1988), "Reliability and validity in field research: some strategies and tactics", *Accounting, Auditing and Accountability Journal*, Vol. 1 No. 1, pp. 34-54.
- Mintzberg, H., Raisinghani, D. and Théorêt, A. (1976), "The structure of 'unstructured' decision processes", *Administrative Science Quarterly*, Vol. 21 No. 2, pp. 246-275.
- Papadakis, V.M., Lioukas, S. and Chambers, D. (1998), "Strategic decision-making processes: the role of management and context", *Strategic Management Journal*, Vol. 19 No. 2, pp. 115-147.
- Parker, L. (2012), "Qualitative management accounting research: assessing deliverables and relevance", *Critical Perspectives on Accounting*, Vol. 23 No. 1, pp. 54-70.
- Peters, J.M. (1993), "Decision making, cognitive science and accounting: an overview of the intersection", *Accounting, Organizations and Society*, Vol. 18 No. 5, pp. 383-405.
- Pike, R. (1988), "An empirical study of the adoption of sophisticated capital budgeting practices and decision-making effectiveness", *Accounting and Business Research*, Vol. 18 No. 72, pp. 341-351.
- Pike, R. (1996), "A longitudinal survey on capital budgeting practices", *Journal of Business Finance and Accounting*, Vol. 23 No. 1, pp. 79-92.
- Shapiro, A.C. (2005), *Capital Budgeting and Investment Analysis*, Pearson, Upper Saddle River, NJ.
- Simon, H.A. (1955), "A behavioural model of rational choice", *The Quarterly Journal of Economics*, Vol. 69 No. 1, pp. 99-118.
- Simon, H.A. (1976), *Administrative Behaviour: A Study of Decision Making Processes in Administrative Organizations*, Free Press, New York, NY.
- Slagmulder, R. (1997), "Using management control systems to achieve alignment between strategic investment decisions and strategy", *Management Accounting Research*, Vol. 8 No. 1, pp. 103-139.
- Stones, R. (1991), "Strategic context analysis: a new research strategy for structuration theory", *Sociology*, Vol. 25 No. 4, pp. 673-695.
- Stones, R. (2005), *Structuration Theory*, Palgrave, Basingstoke.
- Stones, R. (2015), *Why Current Affairs Needs Social Theory*, Bloomsbury, London.
- Vaivio, J. (2008), "Qualitative management accounting research: rationale, pitfalls and potential", *Qualitative Research in Accounting and Management*, Vol. 5 No. 1, pp. 64-86.
- Verbeeten, F. (2006), "Do organizations adopt sophisticated capital budgeting practices to deal with uncertainty in the investment decision?" A research note", *Management Accounting Research*, Vol. 17 No. 1, pp. 106-120.
- Warren, L. and Jack, L. (2018), "The capital budgeting process and the energy trilemma: a strategic conduct analysis", *The British Accounting Review*, Vol. 50 No. 5, pp. 481-496.
- Wood, R. and Bandura, A. (1989), "Social cognitive theory of organizational management", *The Academy of Management Review*, Vol. 14 No. 3, pp. 361-384.
- Yin, R.K. (2003), *Case Study Research: Design and Models*, 3rd ed., Sage Publications.

Corresponding author

Jari Huikku can be contacted at: jari.huikku@aalto.fi

Case study	Business activity	Location	No. of interviews	Interviewees	Interview duration (min)
Case A	Food manufacturing	Finland	1	Senior manager (Projects)	90
			1	Chief operating officer (COO)	100
			1	Chief financial officer (CFO)	35
			1	Controller	61
Case B	Food manufacturing	Finland	(2 people)	Head of Finance	
			1	Senior manager (projects)	45
Case C	Medical supplies	Egypt	1	Investment director (Inv. Dir.)	143
			1	Chief financial officer (CFO)	35
			1	Chief financial officer (CFO)	50
Case D	Security products	Egypt	1	Production director (PD)	60
			1	Financial director (FD)	45
			1	Chief executive officer (CEO)	60
Totals			2	Chief financial officer (CFO)	50 + 40 = 90
			1	Financial director (FD)	40
			14		854

Table A1.
Case organisations
and interviews

Source: Authors' own creation

SST concepts	Interview question themes	Examples of interview questions
<p><i>Agents' strategic context</i> <i>Agents' knowledgeability</i> (understanding of the strategic context) – Stones calls this conjuncturally - specific knowledge (of external structures)</p> <p><i>Habitus</i> (own instincts, values and beliefs) – Stones calls this agents' general dispositions</p> <p><i>Agents' strategic conduct</i> <i>Active agency</i> (the agent's role in SIDM) – Stones also calls this agents' conduct</p> <p><i>Position-practice relations</i> (an agent's power position in relation to other agents in their social network)</p> <p>Source: Authors' own creation</p>	<p>1. How do agents understand their strategic context?</p> <p>2. How do agents feel about the strategic investment decision(s) being made?</p> <p>3. How are strategic decisions made and who gets involved in the process?</p> <p>4. How do agents see their own power position in relation to others in the SIDM process?</p>	<p>Q How do you see your organisation's business environment? Q What do you see as the organisation's critical success factors? Q How/are projects aligned with strategy? Q Why you resist or do not resist investment proposals? (independent causal influences and irresistible causal forces) Q What is your role in SIDM? Q What was it about the project that made you feel for or against it?</p> <p>Q Who gets involved in SIDM? Q Can you focus on the single most important project currently and talk about the SIDM process for this project? Q How was this project appraised? Q Who else gets involved in making an input to project proposals? Who are the stakeholders? Q How are SIDs influenced by key players?</p>

Table A2.
 SST concepts and research questions guiding interviews and analysis