Theorising Strategic Investment Decision-Making: A Conceptual Framework based on Strong Structuration Theory

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Abstract

Purpose – In the field of strategic investment decision-making (SIDM) a body of research has grown up via international case studies and organisation-based fieldwork. However, there has been little systematic comparison of these cases to support theorisation around SIDM processes and practices. The aim of this paper is to propose a new conceptual framework, based on strong structuration theory to enhance the comparability of research findings and to guide how SIDM studies are conducted, analysed and theorised.

Design/methodology/approach – We construct a new framework of SIDM practice that overlays the duality of structure from SST onto the agency concepts of people and process in an organisational context from a prior empirically based model. We apply our SST-informed framework to the re-analysis of SIDM fieldwork and case studies published in a set of 17 journal articles over the period 1970-2014.

Findings – Our model highlights the role of external agents or structures influencing decision-makers in the changing economic and political environment within with decisions are made. We demonstrate the potential of our SST-informed framework in SIDM studies carried out in different contexts and identify key methodological issues.

Research limitations/implications – Our guiding framework and recommendations could assist management accounting researchers, particularly those engaged in case studies and organisational fieldwork, to build knowledge via the improved comparison and integration of cases undertaken by different researchers in different contexts.

Originality/value – We propose a new conceptual framework for carrying out and analysing case study and field research on SIDM.
1. Introduction

An organisation’s strategy is both effected and shaped by its investments in capital assets. Hence, strategic investment decision-making (SIDM) – defined as decision-making about “substantial investments that involve high levels of risk, produce hard-to-quantify (or intangible) outcomes, and have a significant long-term impact on corporate performance” (Alkaraan and Northcott, 2006, p. 150) – has been an important focus for management accounting research. Over recent decades, a body of SIDM case studies and organisation-based fieldwork has emerged from around the world. However, there has been little systematic comparison of these studies to support theory building around SIDM processes and practices. Berry and Otley have noted that this is a problem shared by many areas of accounting research that employ qualitative methods:

“theory building from a number of qualitative case research studies is potentially difficult because the researchers have worked from different methodological stances and hence their research findings may complement rather than build on each other” (Berry and Otley, 2004, p. 244)

This concern is echoed by Hopwood (2009, p. 890), who expresses a desire to see “more cumulative patterns of research” in the accounting literature. In the SIDM field, a key factor inhibiting cumulative knowledge-building and theorisation appears to be the absence of a consistent conceptual framework for carrying out and analysing field research and case studies. The aim of this paper is to propose and illustrate such a framework, based on Stones’ (2005) ‘strong structuration theory’.

While not wishing to duplicate recent literature reviews, it is relevant to highlight some key issues in prior SIDM research. For example, Haka (2006) has pointed out the need for a more holistic approach to examining the factors that shape SIDM, in particular paying more attention to the influence of external structures. Her literature review of over 150 studies, which traced the evolution of research on capital budgeting and investment appraisal from the 1950s to 2004, identified very few practice-based studies that examined the lived experiences of decision-makers in real organisational settings. This led Haka to conclude that:

“A comprehensive research program is necessary to determine how the product factor markets, the capital markets and legal/political/regulatory systems interact with firms’ internal control systems... Most research to date has been piecemeal, looking at only parts of this challenging question. Related issues are how firm ownership structures interact with the markets and regulatory systems to affect investment decision-making and control.”(p.724)

However, our revisiting of the prior SIDM literature (see section 4.1) suggests that Haka may have missed some key contributions that appeared in ‘non-mainstream’ journals. This is a problem shared by Clancy and Collins’ (2014) more recent review, which is based on only a relatively small number of journals in accounting, finance and management analysed over 2004 to 2013. While they found 110 articles on SIDM, just 10 of these were case study based (in contrast, 84 papers used analytical or archival methods). This led Clancy and Collins to comment on the dearth of SIDM case study papers.

One reason for the low incidence of SIDM case and field studies identified in prior reviews appears to be that the reviewers’ nets have been cast too narrowly. As pointed out by Harris and El-Massri (2011), much of the early, practice-based accounting research in this field was concerned primarily with economic models of investment appraisal and tended towards ‘checking’ whether practitioners were adhering to normative economic theory by using discounted cash flow methods like net present value and internal rate of return (e.g. Klammer, 1972; Pike 1983). Hence, survey methods dominated and the accounting literature tended to pay little attention to the organisational context of SIDM.
However, the economic rationality underlying investment evaluation techniques has been critiqued (e.g. Simon, 1976) and work based on other forms of rationality informed by socio-political (e.g. March, 1962; Pettigrew, 1973) and psychological behaviour (e.g. Kahneman and Tversky, 1979) has emerged. Indeed, significant contributions have come from the management literature that has examined the SIDM process in its organisational setting. These contributions largely emanate from the work of Cyert and March (1963), such as the seminal study by Bower (1970) that examined strategic investment decisions from initiation to fruition. Hickson et al. (1986), Marsh et al. (1988), Lumijärvi (1991) and Butler et al. (1993) followed in this tradition, building knowledge of SIDM practice based on the behavioural theory of the firm.

In sum, both accounting and management researchers have used a variety of field-based methodologies such as case studies, action research and grounded theory to produce empirically grounded process models of SIDM (e.g. King, 1975; Mintzberg et al., 1976; Accola, 1994; Harris, 1999; Maritan, 2001; Harris et al., 2009). We analyse 17 such studies later, in order to demonstrate how they can be viewed and compared through a theoretical lens drawn from Stones’ (2005) strong structuration theory.

Structuration theory perspectives are not new to qualitative accounting studies, with a substantial body of research having already drawn on Giddens’ structuration theory (see Englund and Gerdin, 2014 for a review). In recent years, however, Stones’ (2005) elaboration of structuration theory – which he labelled ‘strong structuration theory’ – has been proposed as a useful framework for guiding research in accounting, particularly case studies (Coad and Herbert, 2009; Jack and Kholief, 2007 & 2008). Its “quadripartite cycle” (Stones, 2005, p. 85) of structuration provides a lens for examining the internal and external elements of agency and structure that shape organizational and accounting practices. Such a guiding framework could assist management accounting researchers, particularly those engaged in case studies and organisational fieldwork (henceforth referred to collectively as ‘field studies’), to build knowledge via the improved comparison and integration of cases undertaken by different researchers in different contexts.

Stones’ (2005) ‘strong structuration theory’ (SST) provides a helpful lens for SIDM research for several reasons. First, it has long been recognised that SIDM involves complex organisational processes that, as well as drawing on ‘rational’ calculative tools such as net present value analysis, are shaped by organisational rules, norms and politics (e.g. Bower, 1970; Northcott, 1992; Pinches, 1997; Emmanuel et al., 2010). Hence, there are ‘structures’ at play in organisational SIDM, some of which are formal and, perhaps, imposed (such as legislative frameworks, markets, taxation regimes, and even analysis models) while others may be more tacit and self-determined (such as risk preferences and group decision-making norms). Further, while some actors with influence over SIDM are close to the decision making process – e.g. those who champion a strategic investment project and/or assemble and analyse the business case for it – others act more ‘at a distance’ – e.g. senior managers with ultimate approval authority, strategic investment partners, or even suppliers and customers. Also, SST is a useful framework for analysing situated practices where structuration processes work to shape, embed and enable practices within an organisation, as is the case for SIDM.

The conceptual framework developed in this paper is based on SST, but is adapted to highlight the importance of the external business environment in which organisations operate – a dimension previously neglected in most SIDM studies and becoming particularly important in the turbulent and uncertain modern business environment. The possibility, and indeed desirability, of using the SST framework flexibly has already been noted (Coad and Herbert, 2009), and is a quality of SST that lends itself to our project.

1 We use the term “field studies” to include all research that is organisationally situated and has regard to the decision-making context.
Our aim is that the framework we develop could be drawn on by SIDM researchers to enhance the comparability of research outcomes and guide how SIDM cases are conducted, analysed and theorised. In order to illustrate its potential in this regard, we apply our SST-informed framework to the re-analysis of SIDM fieldwork and case studies published over the period 1970 to the present day. The dual purposes of this re-analysis are: to demonstrate the potential of our SST-informed framework to facilitate the useful comparison of SIDM studies carried out in different contexts; and to identify key methodological issues in using this approach to enhance our understanding of SIDM structures, processes and practices.

The remainder of the paper is structured as follows: first in section 2 we introduce the key concepts in SST and their application in accounting research, before proposing our SST-based model of SIDM in section 3. We outline our method and approach to the selection and analysis of past studies in SIDM in section 4 before presenting the results of our analysis in section 5. We consider the implications for comparative analysis of adopting this SST framework in section 6 and suggest how the framework might aid methodological development of future research before summarising our conclusions and contribution in section 7.

2. Strong structuration theory and management accounting research

Stones (2005), offers a ‘strengthened’ version of Giddens’ (1984) structuration theory (ST), so we summarise the development of SST here. Giddens incorporated both agents and structure in ST, which depicts organisations as social systems, produced and reproduced through ongoing interactions between ‘agents’ and ‘structures’, underpinned by common rules and norms (Giddens, 1979; Macintosh and Scapens, 1991). This double-sided framework has contributed to the management accounting literature. Management accounting practices (e.g. budgets) represent structures of meaning that agents draw upon to orientate their actions, provide moral ordering of reciprocal rights and obligations, and embed power relationships (Roberts and Scapens, 1985).

Examples of ST-based management accounting research include studies of: management by objectives (Alam et al., 2004; Dirsmith et al., 1997); costing systems (Hassan, 2010; Jack, 2005; 2007); enterprise resource planning systems (Jack and Kholief, 2008, Hyvönen et al., 2006); budgets (Uddin and Tsamenyi, 2005); supply chains (Free, 2008); organisational change (Conrad, 2005; Joseph, 2006); and performance evaluation (Cowton and Dopson, 2002; Scapens, 2006).

Despite the contributions of ST, it is subject to considerable criticism (Stones, 1991; Jones and Dugdale, 2001, Stones, 2005; Jack & Kholief, 2007; Coad and Herbert 2009). Stones (2005, p. 61) claims that there is “no place in structuration theory for external structures that either pre-exist agency, or have a causal influence on the outcome of agent’s practices”. Ignoring the influence of external structures is, arguably, due to the methodological bracketing within ST. Giddens (1984) argues that ‘strategic conduct analysis’ and ‘institutional analysis’ are both elements of structuration theory and may be conducted separately as a form of methodological bracketing. Strategic conduct analysis is interested in hermeneutic ways in which human agents draw upon their understanding of the structures of signification, domination and legitimation, which lie at the heart of structuration theory (Stones, 2005).

However, institutional analysis treats institutions as a set of reproduced rules and resources (Giddens, 1984, p.378). Stones argues that institutional analysis:

“cannot grasp structures as a ‘medium’ of agent’s practise .......Neither can it knows which structuration ‘outcomes’ are links between structures at the most abstract level and more substantive notions of structure” (Stones, 2005, p. 44).
Stones (2005) also argues that institutional analysis fails to frame the meaning from within which agents understand the external structuration process, so it fails to consider the influence of the agents’ context. In SIDM, contextual influences are emphasised throughout the decision making process: Hickson et al. (1986) concluded that the political environment significantly influenced SIDs; Child and Lu (1996, p. 61) emphasise the influence of social and political dimensions, arguing that institutional constraints influence the final approval of SIDs; and Elbanna and Child (2007) focused on the influence of culture in shaping SIDs.

Another criticism of Giddens’ ST is that it lacks a connection between the theory and empirics, so gives researchers little direct guidance on the conduct of empirical research (Jones and Dugdale, 2001, p.53). Stones (2005, p.7) argues that Giddens’ treatment of ST is directed towards establishing a general set of concepts, “ontology-in-general”, that holds the conceptual definitions of ST’s concepts at the abstract and generalising levels to encompass all structures and all agents across all times and in all spaces, missing the distinction between the philosophical and the substantive level. In order to understand a specific particular social phenomenon in a given time and space, we should move to “ontology-in-situ” or the “ontic” level to develop bridging constructs between the philosophical and substantive levels of structuration (Stones, 2005). The ontic is the “level at which the empirical can be sought”, i.e. the level oriented towards the realm of particular situated entities with their particular qualities, relations and substantive details (Stones, 2005, p.76). Therefore, Giddens’ approach is limited in substantive empirical research, and can be used only as a sensitising device or analytical tool (Jack & Kholeif, 2007).

Consequently, Stones suggests two contributions to strengthen ST in order to make it empirically ‘strong’. First, ‘strategic context analysis’ should be coupled with strategic conduct analysis rather than institutional analysis. In contrast to institutional analysis, strategic context analysis takes us away from the agent’s hermeneutic frame of meanings out towards the external process of structuration, thereby filing the institutional gap in Giddens’ approach, to constitute a suitable theoretical framework for empirical research (Jack & Kholeif, 2008). This occurs through agents-in-context. Agents-in-context represent the tool or channel through which other agents understand the external structures. The strategic agents’ context enables us to examine how agents-in-context shape decision makers’ hermeneutics frames and their strategic conduct in SIDM.

The second contribution of Stones stems from adopting Cohen’s (1989: 210) definition of “position-practices”. Cohen (1989) posits position-practices to provide a link between Giddens’ methodological bracketing of the institutional analysis ‘positions’ and strategic conduct analysis ‘practices’ (Stones, 2005, Jack & Kholeif, 2007). Therefore, positions-practices fill the “missing institutional link” in Giddens’ work (Thrift, 1985, p.618). The notion of positions-practices provides an appropriate space to conceptualise the meso-level institutional link between structures and agency, as it acts as a bridge between the abstracted ontology-in-general and the substantive, empirically informed, ‘ontic level’ (Stones, 2005).

Stones’ (2005) SST is a holistic theory, which depicts structuration as a quadripartite intertwining of external and internal structures, agents and outcomes. As our study focuses on both external and internal influences on SIDM, we employ Stones’ SST to explore the managerial judgment of agents, as it helps us to understand how agents interpret and react to external pressures. External structures are conditions of action that influence agents-in-focus (Stones, 2005). Internal structures are classified as (a) ‘conjuncturally-specific’ internal structures that 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”; and (b) ‘general dispositions’ that influence agents “naturally” and unconsciously (Stones, 2005, p. 91).
In the SIDM field, there is evidence that managers use their intuition and tacit knowledge in forming views about potentially complex projects and exercising their judgement using simplifying heuristics in personal and shared cognition (Harris et al., 2009). This can be seen as bias in decision-making (from a behavioural finance perspective), or as a positive contribution to SIDM (from a practice-based theory perspective) when based on relevant expertise and extensive knowledge of the business environment, the industry, and past projects (Harris, 2009). This aspect of SIDM research, which draws on psychology, can be accommodated in SST as part of the internal structures created by agents-in-focus.

There is a line of research in the management accounting literature that explores the interactions between conjuncturally-specific internal structures and general-disposition structures. Jack & Kholeif (2007), for example, argue that these interactions raise conflicts about the organisational role of management accountants after ERP systems implementation. Management accountants were attempting to create organisational structures, rules and routines to set up an ERP system, while also acting in accordance with their general disposition (as accountants and former corporate employees) which led them to reproduce familiar structures. Similarly, Coad and Herbert (2009) investigated the role of engineers in a new management accounting system. The new control regime affected the financial empowerment of engineers, who had previously maintained manual records. This created a conflict between the engineers' general dispositions and their external structural context which led them to be receptive to changes in management accounting practices.

SST enables us to empirically examine how external structures influence agents in SIDM practice. There are three reasons for this. First, there is SIDM literature that emphasises the importance of considering external contextual influences For example, Quinn (1980) argues that strategic decision-making is shaped by a variety of external influences arising from past events, present circumstances and perspectives of the future, while Carr et al. (2010) found that SID practices in the USA, UK and Japan are different due to geographical contextual influences (see also: Hickson et al., 1986; Child and Lu, 1996).

Second, Stones (2005, p. 122) emphasises the role of agents-in-context (strategic agent context) in the ‘agent-structure’ relationship. Stones’ attention to the role of agents-in-context represents an opportunity to understand the impact of external structures. Third, SST explores power relationships between various agents and structures through focusing on how agents-in-context shape the hermeneutic frames of agents-in-focus (in our study, SIDM decision-makers) and construct their strategic conduct in SIDM. Giddens (1984, p. 373) argues that agents exercise power through controlling material (allocative) and human (authoritative) resources. Both types of resources mediate the transformative capacity of human actions (power in a broad sense), and at the same time provide the medium of domination (power in the narrow sense) (Macintosh and Scapens, 1990; Busco, 2009). Giddens refers to this as the dialectic of control by which there are relations of autonomy and dependence in all social relations beyond those based on physical coercion (Stones, 2005, p. 29). Coad and Glyptis (2014) argue that agents should be sensitive to the fact that their strategic conduct is contingent on how others act. This is explored by understanding the relational power of agents’ ‘positions-practices’ (Stones, 2005, p. 63). Coad and Glyptis (2014, p. 158) illustrate the use of the ‘positions-practices’ in accounting and management control research, arguing that the concept of ‘positions-practices’:

“...more clearly sensitis accounting and control studies to how agents, situated in time–space contexts, draw upon their knowledge of situated practices, when engaged in the exercise of power, acts of communication and the imposition of sanctions”.
In brief, the ontic focus also enables us to understand the influence of external structures, agents-in-context, position-practices, internal structures, agents-in-focus and power in the ‘structure-agent’ relationship. The components of Stones’ quadripartite framework represent a relationship between structures and agents that enables us to empirically examine the various relationships between agents and structures to present a framework for SIDM. The complex interrelated relationships are emphasised in the context of decision-making, in particular SIDM. The uncertainty embedded in such decisions reconstructs the ‘structure-agent’ relationship which provides in-depth understanding about SIDM.

3. Developing a conceptual framework for SIDM based on SST

Prior research on capital investment decision-making has contributed some useful strands of partial theorising of SIDM in terms of the appraisal techniques used in practice and the process by which decisions are reached. However, the challenge is to bring these together in a more holistic model that balances the need for both specificity and flexibility, to provide a suitable framework for analysis and comparison of case studies and ultimately contribute to a ‘meta-theory’ of SIDM practice.

Any framework for analysing SIDM needs to capture all elements of the people and processes involved. We selected Harris et al. (2009) as our starting point as it captures many of the people and process elements and is the most recent. However, it does not make the external structures and independent causal influences explicit enough. We propose to build on it for our model and argue how we think SST helps us to improve on this model as a more comprehensive framework.

The first step here is to review the tripartite model proposed by Harris et al. (2009: p. 43) through the lens of Stones’ (2005) quadripartite framework, outlined in the previous section, to view the agency and structural issues in relation to decision makers and their habituated practice. Then, following Stones’ (2005) suggestion to combine SST with other approaches and Coad and Herbert’s (2009) call to use SST flexibly, we propose to retain two of the three dimensions of people and process, but rethink the third dimension of organisational context within which people and processes operate. We intend to add an important fourth dimension to our SIDM framework, to highlight the importance of the external business environment in which organisation operates. The fourth element of Stones’ framework is the outcomes of actions (Stones, 2005: p. 85). In applying this to SIDM we need to differentiate the outcomes of SST (in terms of changes to, or reinforcement of, structures and practice) from the outcomes of SIDM (the investment decisions). We return to this differentiation and the issue of outcomes later.

Figure 1 here

Figure 1 shows the Harris et al. (2009) model of the SIDM process. This model positioned the process factors as the structures put in place by senior management to determine which organisational managers are asked to participate, who they consult with, and what systems are used to support their decision-making. It is worth noting here that, while Giddens (1984) and Stones (2005) conceive internal structures as being within the agent (e.g. his/her world view, values, habits etc.), Coad and Herbert (2009) demonstrate that groups of actors (in their study, management accountants and engineers) can be considered collectively as agents-in-focus and that group or organisational boundaries can be adopted as a way to “delineate external structures” (p. 183) from internal structures. In our SIDM context, the actors who participate in the decision-making process can,
similarly, be considered as a set of agents-in-focus and the factors that shape their shared decision-making rules can be appropriately analysed as internal structures. Hence, SIDM process factors may be seen as internal structures in SST, since they shape the rules and norms of SIDM practice in the organisation. This is both influenced by and a product of the managerial judgement of the SIDM participants (agents-in-focus), in terms of their heuristics, frames of reference, preferred format of business case presentations and degree of sharing of ideas (especially within their own management team or cluster) to reach a decision.

However, it is the organisational context - in terms of the levels of bureaucracy, the roles and position in the organisational hierarchy of the participants and external advisers (if any), as well as industry norms - that shapes the organisational SIDM practice as either enabling or constraining managerial judgement. SST would argue that agents-in-focus will in any case exercise their personal judgement and form their own views about whether a project is worthwhile, but that their relative position and power in the organisation determines the extent to which that view is informed, heard or heeded. If there is a heavily top-down SIDM process, it may emphasise compliance and constrain or impede the use of valuable knowledge and experience-based intuition by those closest to operations and project implementation.

If on the other hand there is a more collaborative bottom-up corporate culture, the SIDM process can benefit from the expertise and tacit knowledge of more people and enable managers at all levels to participate in SIDM more fully. The extent to which this is feasible or desirable may depend upon the type of project being considered and on how sensitive the relevant information might be. For instance, it may be more feasible in infrastructure and business development projects than in, say, business acquisition decisions where news about the prospect will be kept confidential prior to the announcement of a takeover bid. The organisation’s size and ownership structure is also likely to affect the number of managers who may be party to strategic options or project opportunities. In SST, size and ownership structure may be termed ‘independent causal influences’.

The level of uncertainty plays an unclear role in figure 1, as does the complexity of the decision, but both may be seen as external influences emanating from market conditions and the nature of strategic options or project opportunities, in which case they warrant further investigation and explication in the model going forward. It seems sensible to put these factors together with the other contextual factors and see whether an agency and structure analysis helps to clarify this part of the model.

In the proposed framework we recast the people and process perspectives of SIDM as agents-in-focus and internal structures relevant to the decision makers in the context of organisations, using two of the four dimensions of SST. We explore the issue of what is external, which in Giddens’ and Stones’ terms is thought to be external to the individual, whereas in management studies it is more likely to be external to the organisation (e.g. Coad and Herbert, 2009; Jack and Kholeif, 2008). As noted, this ontological dilemma is more easily resolved at the meso-level in Stones’ SST by defining agents-in-focus as the cluster of ‘multiple managers’ involved in SIDM in the organisation. However, in the case of foreign owned multinational companies, the managers in the holding company may be viewed at a local level as external agents-in-context.

Figure 2 here

The model proposed in figure 2 presents SIDM practice in the centre as the continuous cycle of action taken by agents in the organisation. The top half of the model relates to people, both those considered to be external to the decision makers (i.e. agents-in-context) and internal (i.e. the agents-
in-focus). The bottom half relates to the processes and/or structures governing SIDM practice, both those external to the agents-in-focus and those they are immersed in.

The left-hand side of the model is described as external and relates to the business environment and ownership context for SIDM. First, agents-in-context are those who influence agents-in-focus in their SIDM practice. In the SIDM context, competitors, directors of the parent company, customers, engineers, accountants and governmental agencies are example of agents-in-context. Hence the major agents-in-context in this model will be those familiar with the business environment at large and specific sectors or professions. In SIDM practice, agents-in-context may also include academics and professional advisers.

Second, external structures represent a set of conditions of actions that enable or constrain the practices of agents-in-focus. In the SIDM context, external structures can be the firm strategy, rules and regulations of the parent company, and the corporate investment appraisal manual that specifies evaluation techniques, as well as market conditions and political, social and economic factors for the country context. The external structures will largely be products of agents-in-context in some way, such as legislation, government policy, industry norms, environmental pressures, financial markets and banking practices, professional codes of conduct etc. These may change over time and could be especially unstable in countries going through radical political, social and/or economic reform.

The right-hand side of the model concerns the agents-in-focus involved in SIDM. These may include managers from different discipline backgrounds and, in a large hierarchical organisation, at different levels, so it may be difficult to generalise as to who exactly these people are. However, once the strategic investment decision itself can be defined, those who are likely to participate in exercising their managerial judgment should be readily identifiable, e.g. via management structures depicted by organisation charts and embedded within job descriptions. Internal structures are general dispositions, thinking and hermeneutic frames of meaning of the agents-in-focus and will be a product of the personal traits, roles and identities of the individual agents influenced by a plurality of external agents.

To ensure this framework retains the salient features of the prior descriptive model of Harris et al. (2009), addresses the weaknesses of that model identified above and offers an enhanced model capable of application to multiple case studies, we have tested it on a set of prior studies (see section five) and developed a research design for future use. The aim is not to over-specify the model at this stage. Rather, we aim to draw on Stones’ SST ideas to move beyond the abstract level of Giddens’ ST to the meso-level and to illustrate the model’s application to guide future use. An individual case study may be analysed at the ontic level, but if we are to theorise from a number of studies across countries and sectors, the model needs to be positioned at the meso-level.

4. Methodology

In applying our SST-informed framework to the re-analysis of published SIDM field studies, attention had to be given to two issues: how to select the studies for re-analysis; and how to apply elements of the conceptual framework to our re-reading of each study.

4.1 Selecting studies for re-analysis

Our selection of published SIDM studies for re-analysis comprised several steps. First, we considered the range of publication outlets and dates to be searched. The sources drawn upon were accounting
and management journals included in the ABI/INFORM (Complete) Proquest database, since SIDM is a topic that spans the accounting and strategic management literatures. Our search period spanned from January 1970 to December 2014. We chose 1970 as the start date because it was the year in which Joseph Bower’s seminal book on SIDM case studies was published, marking the onset of the body of field research on this topic.

To identify publications on the topic of SIDM, we used the Proquest database to identify peer reviewed publications within the specified date range that included any of the following terms within their abstracts: capital investment(s); capital budgeting; strategic investment(s). In addition, the aims of this study meant that our analysis would be confined to ‘field studies’, which we broadly defined to include case studies, action research, grounded theory studies and ethnographic studies. Hence, we further limited our database search to only those publications whose full-text included at least one of the following terms: case study/studies; field study/studies; fieldwork; interviews. We then referred to previous literature reviews in this field – i.e. Emmanuel et al. (2010) and Clancy and Collins (2014) – to confirm that we had not missed any significant publications or journal outlets.

We then reviewed the 108 publications identified via this search to ensure that their focus of enquiry was indeed SIDM, as defined in the introduction to this paper. At this point, some publications were eliminated because they focused on short-term or financial-type investments rather than investments that reflected a long-term, strategic commitment by an organisation. We also checked that the studies fell within our definition of ‘field studies’. In applying this criterion, our main concern was to ensure that the study gave consideration to organisational context (i.e. organisational structures, processes, practices and actors). Hence, at this point we eliminated some studies that were based on: survey data, where the findings were not framed within any organisational context; experimental methods, where organisational context was absent or fictitious; and conceptual analysis that did not draw on empirical evidence. We also eliminated studies that focused on the mechanics (or frequency of use) of investment appraisal techniques and lacked the consideration of context, people and/or process that is usually associated with case and field studies.

The application of our selection criteria left us with a total of 17 publications (Identified in section 5) that reported field studies of SIDM in the period 1970-2014. While we make no claims that this represents an exhaustive set field studies on SIDM, this collection of papers captures the main body of this research as a basis for our re-analysis using the SST-informed framework developed earlier.

4.2 Operationalizing the conceptual framework

As described earlier, our SST-informed conceptual framework (figure 2) has five key elements. Two of these elements capture ‘external’ influences on SIDM (external structures and agents-in-context) while two others capture ‘internal’ influences on SIDM (internal structures and agents-in-focus). The fifth element relates to the structuration outcomes – i.e. the ways in which the other four elements combine to produce change or reinforcement ‘outcomes’ for the structures and practices associated with SIDM. To capture each of these elements, our re-analysis of the papers identified via the literature search is organised under five corresponding headings.

For each element, we identified keywords that were likely to signal a concern to examine this element in the study. For example, external stakeholders often act as agents-in-context because they shape the external environments within which organisational SIDM takes place. Hence, keywords such as ‘financiers’, ‘strategic alliances’, ‘customers’, ‘shareholders’, ‘policy-makers’ etc. were taken to signal a concern to identify agents-in-context and their influence on SIDM. Similarly, the interviewees in field studies of SIDM might generally be construed as agents-in-focus, since they can offer perspectives on the lived reality of SIDM practices. Hence, references to interview data
and/or keywords such as ‘manager’ or ‘decision-maker’ were examined to check whether the study’s authors had identified the agents-in-focus related to SIDM.

The identification of categorisation keywords was an iterative process, as variety and nuances continued to emerge during the examination of the focal papers. Equally, associating these keywords with some element of our conceptual model required us to consider the context of their use. For example, ‘managers’ were often directly involved in the studied SIDM processes as agents-in-focus. However, some ‘managers’ – e.g. Group CEOs or CFOs, particularly in large, multinational firms - could also be agents-in-context if they were standing apart from the decision-making context as distant overseers, perhaps shaping pre-decision controls (Alkaraan and Northcott, 2007) or acting akin to funding providers. Keywords were used as triggers for closer analysis, therefore, rather than as unequivocal indicators that SST-related concepts had been examined in the original studies.

This translation of the conceptual framework elements into key keyword ‘triggers’ is an important, and also challenging, aspect of operationalising a SST perspective for analysing prior fieldwork studies. In all likelihood, a conventional content analysis of the extant literature would fail to identify the use of terms such as ‘agent in focus’ or ‘external structures’, or related concepts such as ‘conjecturally-specific knowledge’ or ‘position-practice’, since few prior studies have adopted SST as their theoretical lens. Compiling keywords that could be construed as reflecting these SST concepts required that we immersed ourselves in both Stones’ writings on SST and the papers being re-analysed, and relied on a discursive and reflexive approach amongst the research team members.

4.3 Re-analysing the prior studies

The approach we took to re-analysing the published papers on SIDM was as follows. Three of the co-authors on this paper looked at each of the papers that were re-analysed according to the SST-informed conceptual framework. First, two people looked at each paper separately and then met to discuss it. They presented their analysis to a third person who read the paper fresh and then cross-checked their own categorisations against those already presented. This third person also identified the most significant illustrations for each dimension of the analysis and compiled the summary presented in Table 1. Where there were any disagreements as to appropriate categorisations, this was discussed across the co-author team. The sorts of issues that arose, and how they were resolved, are discussed later. These insights provide useful guidance for other researchers attempting to use this (or any other) SST-informed framework for analysing field studies, since the approach taken to associating research data with elements of the framework is key to building knowledge via the comparison and integration of field studies across different contexts.

The findings from this re-analysis of the prior literature on SIDM field studies are presented next.

Table 1 here

5. Analysis

Table 1 summarises the evidence we extracted from our re-analysis of the prior field-based studies to demonstrate how our SST-based framework may be used to compare and theorise SIDM cases. Of course, SST was not used as a theoretical lens in the original studies, so our task was to re-categorise the findings post hoc in order to assess whether our SST-informed framework offers a practicable and useful lens for analysing SIDM field studies. We first discuss the findings of our re-analysis column by column, so we follow the four quadrants of our model from figure 2, and then note the
outcomes in terms of changing structures resulting from the SIDM practice observed in the studies. We then reflect on the use of our proposed framework as a means of case comparison and theorising SIDM.

5.1 External structures

Across the papers we reanalysed, the level of reporting varied in regard to the external structures or processes imposed on decision-makers either by ‘head office’ in divisionalised organisations or by the external business environment. However, we found relevant material in most of the papers we analysed. Carr et al. (1996, 1998, 2004 & 2010) observed stock market pressure in UK, US and Japanese companies, leading to the need for shorter-term returns on investment and a focus on financial analysis. In contrast, the German family owned companies had more scope to look for longer-term returns and hence focused more on customer needs and the strategic context in the automotive components industry.


Organisation structure and vertical information asymmetry featured in Harris (1999), Lumijärvi (1991), Slagmulder (1997) and to some degree in King (1975) and Mintzberg et al. (1976). It is seen as a source of power for agents-in-focus by Jörgensen and Messner (2010). Labour markets were referred to by Carr and Tomkins (1998) and Lumijärvi (1991). Economic indicators, e.g. interest rates and inflation were also observed as influential in Carr and Tomkins (1998), Collier and Gregory (1995), Lumijärvi (1991) and Sykianakis and Bellas (2005).

This view across SIDM field studies suggests that investment policies, preferences of the parent company and strategy as articulated at group level were important in most cases, as was the system or process defined by the top board for authorising SIDs. In some studies it was difficult to differentiate between external and internal structures, but this may be because it was not always obvious who designed, owned and controlled the analysis tools and techniques used in project appraisal and, therefore, to distinguish whether they were imposed (as external structures) or self-defined habituated practices (i.e. internal structures). Further exploration of this distinction in future studies may reveal insights into the mechanisms by which SIDM is shaped externally and externally and the degree of decision-making control this produces.

5.2 Agents-in-context

In some ways actors falling into this category were quite easy to identify, as some stakeholder groups - such as government, customers, suppliers, competitors, shareholders and other investors - were identified in most cases. Reference was made to the role of industry or trade associations in Collier and Gregory (1995) and Miller and O’Leary (2007), and the use of consultants, ‘external advisors’ or experts (some internal to the company but outside the project proposal team) were reported by Collier and Gregory (1995), Eisenhardt (1989), Nixon (1995), Slagmulder (1997) and Sykianakis and Bellas (2005). These agents-in-context (AIC) included research organisations, universities and chambers of commerce as well as prospective investment partners. In some cases the AICs included parties who lobbied against the project, for example trade unions and the local Mayor, as well as parties consulted or lobbied by the company such as government ministers (Sykianakis and Bellas, 2005).
In several studies the group CEO or members of the top board appeared to be acting as AICs, more as providers of finance, rather than as agents-in-focus (AIf), the active participants in the decision process. However, in business acquisitions and foreign direct investment projects they were most definitely AIFs (Harris, 2007 and Sykianakis and Bellas, 2005). This categorisation of agents is where SIDM researchers would need to make their own judgement as to the role played by agents at different levels in the firm if using our SST-based framework. However, our cross-study analysis reveals that attempting to trace AICs is a worthwhile endeavour for researchers, since AICs can play a significant role in shaping SIDM processes. Our application of a SST-informed analysis framework highlights the need to consider AICs as within the scope of our SIDM studies, so we can fully appreciate how their context-shaping influence impacts SIDM practices and structures.

5.3 Internal structures

The differentiation of AICs and AIFs is also important in terms of categorising the role of non-human agents or procedures as external or internal structures in our framework. Duality of structure is part of the essence of both Giddens’ (1984) work and Stones’ (2005) SST. Having defined external structures as those imposed by AICs and internal structures as those created or developed by the AIFs active in the SIDM, we have included bottom-up control mechanisms as internal structures. Therefore, local manager meetings and communications, user-defined spreadsheets and consensus seeking procedures are noted here. This encompasses the norms and practices developed by teams of managers for themselves and ‘enabling’ aspects of managerial judgement from Harris et al. (2009). Such processes were observed to some degree in almost all of the re-analysed field studies, though again we had to exercise judgement as to what was counted as internal or external and original authors may not agree.

Stones (2005, pp. 87-88) divides internal structures into two types: general dispositional (strategic conduct analysis that agents repeatedly apply across different situations); and specific conjunctural (context analysis where agents apply specific knowledge of particular situations). In the SIDM studies we analysed, the most frequently observed examples of the former were processes whereby AIFs communicated their proposals and choices to a group board, defined as transmission (King, 1975), or selling (Lumijärvi, 1991) rules of thumb (Collier and Gregory, 1995) and risk assessment criteria (Harris, 1999, 2007).

Examples of the application of conjuncturally-specific knowledge (CSK) include: the use of downside scenarios (Carr and Tomkins, 1996); the use of active and passive consensus to resolve conflicts or inconsistencies in information (Eisenhardt, 1989; Nixon, 1995); and the suggestion of project specific performance indicators (Miller and O’Leary, 2007).

5.4 Agents-in-focus

Most of the SIDM field studies identified the participants or informants in the study as those managers who were most involved in the SIDM process, though it was not always made explicit where the locus of control lay in the organisation. We can identify project teams in many cases (e.g. Carr and Harris, 2004; Eisenhardt, 1989; Harris, 1999; Sykianakis and Bellas, 2015), while the CEO was identified as the most involved decision-maker in some cases (Carr et al., 1996, 1998 & 2004; Collier and Gregory, 1995; Eisenhardt, 1989; Harris, 2007; Sykianakis and Bellas, 2015). However, there was one paper where it was difficult to identify any AIFs at all (Miller and O’Leary, 2007) because the research emphasis in terms of the involvement of human actors was on the external stakeholders.
5.5 SIDM practice: outcomes

Using the SST definition of outcomes, it was not always possible to identify changes in structures and process as many studies took a snapshot of SIDM practice at a point in time or for a single project. The key exception was Slagmulder (1997), whose research focused on the development of new practice or changes to management controls. In terms of the SIDM process, we identified a number of examples where there were feedback loops or an iterative process being employed (Carr and Tomkins, 1996; Collier and Gregory, 1995; Harris, 1999 and 2007; Miller and O’Leary, 1997; Mintzberg et al., 1976; Sykianakis and Bellas, 2015). We return to this in the next section in regard to adopting our framework for the analysis of future studies.

6. Implications for comparative analysis and methodological development

Reflecting on the application of our framework, we identify several issues related to how this approach could facilitate comparative analysis and theorising, and its implications for methodological development in the SIDM field.

The first of these issues concerns timing. Analysing SIDM studies using an SST-informed framework has pointed to the importance of tracing all the AICs and AIFs who influence these decisions, the external and internal structures that shape the context for these decisions, and the structuration outcomes (changes to, or reinforcements of, SIDM policies and practices) that result. However, the nature of SIDM, where the process of appraising and implementing an investment project can take months or years, means that relevant actors, structures and change processes can be discerned only over time. Hence, SIDM research lends itself to longitudinal case studies. The problem is that researchers may have access issues and/or may need to publish their research findings within shorter timescales.

It is conceivable that the researcher who relies on a single interview with each research participant is only able to capture a picture of SIDM at one point in time, i.e. the date of the interview. However, in most interviews (whether the point is explicit or not) interviewees reflect on the past and comment on the changes that have taken place or, if a decision was made some time ago, on the subsequent results or outcomes of that decision. Indeed, some researchers explicitly use stimulated recall (e.g. Harris, 1999) to ask interviewees to reflect on past events, for example strategic investment projects or decisions that went badly or well. Others may design their research to engage with each participant across multiple periods, thus allowing interviewees to explain events or outcomes over time. Either can be legitimate means of conducting a more longitudinal study (e.g. Harris, 2009) and enabling a SST-informed analysis that appropriately captures the actors, structures and outcomes of SIDM.

It is pertinent here to say a little more about outcomes. Where the focus of enquiry is the process and people involved in SIDM, the researcher may not investigate the most obvious outcome of that process, namely the decision. However, that need not mean the outcomes in the SST sense are neglected. Indeed rather than focusing on the decision outcomes, the researcher viewing SIDM through the lens of SST is most interested in the new or adapted structures that occur as outcomes of the process. By using a consistent theoretical lens - such as the framework we have developed
and tested here - to trace these structuration outcomes, theorisation can be better supported by a cumulative body of research that captures outcomes across differing SIDM times and spaces.

Another key methodological issue arising from our re-analysis pertains to the identity of agents (internal and external) and the implications for who researchers seek to interact with. The selection of informants should be focussed on the internal agents-in-focus, but would also benefit from explicit selection of informants who are agents-in-context, where possible. We do not propose that researchers seek to interview competitors and other external stakeholders necessarily. However, including interviews with head office personnel or one or two top managers in a divisionalised firm has proved insightful in some studies we re-analysed and would be crucial to observe the position-practices of agents more fully. There is also potential value in collecting more data on the ‘conjuncturally specific knowledge’ (CSK) of agents in the practice of SIDM. CSK was difficult to capture succinctly in table 1, though information asymmetries were noted.

Another important aspect of SIDM studies for accounting researchers is to capture the use of accounting information in the SIDM process. Jørgensen and Messner (2014) found that in order to fit the firm’s strategy (an external structure) AIFs use accounting information as an act of communication to understand the strategic consideration of investment decisions. The uncertainty and complexity of strategic decisions (external structures) might diminish the power of accounting information in dominating and legitimising strategic decisions, thus, AIFs use their habitus, experiences and consensus as an act of communication to strategise their decisions (Jørgensen and Messner, 2010 p.185):

“Accounting is not the only practice that shapes the strategising process, but when it is enacted as rules and general understanding …. it becomes a powerful means that allows managers to move forward despite high degrees of complexity and uncertainty..”.

“The representational limits of accounting in a pluralistic and uncertain context are less likely to be contested if accounting information can be combined with a more hands-on approach to control that relies on mobilising strategic arguments. We show how such processes of strategising are promoted by top management but rely upon the local knowledge of managers and engineers and their efforts to coordinate themselves.” [italics emphasis added]

In addition to that, external structures (strategy) might be shaped or re-produced due to the power of internal structures (CSK and habitus) and the influence of other external structure (e.g. uncertainty) and AIC (top management and engineers). Not all of the original studies in our re-analysis sought to expose the power of internal structures in observing agency being exercised. Hence, there is scope to develop this aspect of SIDM in future studies; using our SST-informed analysis framework would help to achieve this by bringing all dimensions of agency and structure into focus.

Stones (2005, p. 123) offers advice to inform the design of research studies using SST by investigating questions about: the general disposition and habitus of agents; the authority and position of agents (informants) in the organisational hierarchy; and agents’ views of external structures. A plan for a case study investigation is suggested (Stones, 2005, p. 126):

1. Identify a decision or event
2. Present external structural clusters
3. Reveal agents’ current general dispositions and traits
4. Observe agency being exercised

We suggest that in adopting this plan for SIDM studies, a fifth stage may usefully be added to enable the outcomes of agency to be made more explicit:

5. Reveal the learning and feedback loops in the SIDM process and note changes in structures

We acknowledge that the researchers whose work we have re-analysed in the preceding section of this paper did not necessarily set out with such a plan in mind. However, their studies have revealed sufficient evidence of these matters for us to conclude that it would not require too big a shift in research design for future studies to accommodate the use of our framework and apply our SST-informed model. By defining the event in stage 1 as the SIDM process (from initiation to fruition) and employing a consistent and comprehensive theoretical framework such as the one we have developed and tested here, we suggest future cases studies may be both more informative and more comparable.

7. Conclusion

Our paper responds to the call for researchers to draw on Stones’ (2005) strong structuration theory to inform studies of management and accounting (Coad and Herbert, 2009; Jack and Kholief, 2007 & 2008). Its key contribution is to propose a new conceptual framework for SIDM research based on applying strong structuration thinking to a prior descriptive model of the SIDM process (Figure 1). While this prior, three-dimensional model captured people and process in an organisational context, we superimpose Giddens’ and Stones’ concept of duality of structure to divide the SIDM context into external and internal components. This modification is important because it draws research attention to the impact of external structures and agents-in-context in shaping SIDM. And, given the turbulent and dynamic nature of the contemporary global business environment, these external factors are likely to become increasingly important in understanding and theorising SIDM. It is also worth noting that, while Stones portrayed structuration processes in a static model that started with external structures then moved to internal structures, agency, then outcomes, our model (Figure 2) depicts the cycle as more dynamic and continuous than Stones. This subtly re-orientated structuration model reflects the ongoing process of feedback and continuous learning that is associated with decision-making at the strategic level. It also highlights the need to reflect on the interactions between the elements of agency and structure that shape SIDM, rather than seeing them as separable categories. Indeed, this is an aspect of SST that could be usefully enhanced via the use of this model to analyse field study evidence and reflect on how structure and agency cohere and act to reshape practice.

We tested our SST-informed framework on past research by re-analysing a set of SIDM field studies published in the last few decades. This re-analysis showed that the framework can usefully be applied to reviewing the findings of prior SIDM studies, thus facilitating their comparison and collective analysis. It also revealed that few prior SIDM studies reflect on ‘outcomes’ in the sense that SST conceives them – i.e. changes to, or reinforcing of, the structures that shape SIDM. This points to an important opportunity for future SIDM research that would be facilitated by employing the sort of conceptual framework we present in Figure 2.

We also noted some challenges in using our conceptual framework for the reanalysis of prior SIDM field studies. In particular, it was difficult to ensure the consistent categorisation of prior findings, particularly when it came to differentiating between internal and external structures and making judgements about the proximity of agents to the SIDM activity. However, we found that a team
approach to discussing these challenges served to strengthen the consistency of the framework’s application, so we recommend this approach to other researchers.

Finally we reflected on our re-analysis in making recommendations for future SIDM research. In terms of the utility of the proposed framework, we are concerned that it should not be over-prescriptive, as this could reduce its wider appeal and applicability. However, it also should not be under-defined, or it risks becoming too simplistic and less helpful for analysing research evidence. We suggest our framework has the potential for broad applicability if viewed as a dynamic and flexible guide that may evolve through wider use as researchers resolve further issues in its application to SIDM.

Motivated by the lack of systematic comparison of prior SIDM studies to support theory building, this paper responds to calls to enhance the potential to theorise from case studies (Berry and Otley, 2004) by proposing a consistent conceptual framework for carrying out, analysing and comparing field studies. The SST roots of our framework mean that it facilitates theorising at the meso-level from case and field studies that provide rich and detailed research evidence at the ontic level. We invite management accounting researchers to further test and develop this framework in their future SIDM research, both in guiding the design of their field studies and in revisiting past research to identify gaps, develop new research questions, and “build on” the work of others (Berry and Otley, 2004, p. 244) to enhance the theory and practice of SIDM.
References


Harris, E. (2009), Strategic Project Risk Appraisal and Management, Farnham: Gower.


**Figure 1 Descriptive model of the SID process**

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<th>Managerial Enabling</th>
<th>Managerial Constraining</th>
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<td></td>
<td>Heuristics admitted to the process with experience determining anchors or benchmarks</td>
<td>Heuristics limited by top management imposing criteria</td>
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<tr>
<td>Complexity</td>
<td>Framing is determined by the team making the proposal shaping the presentation of the case e.g. using own spreadsheet</td>
<td>Framing is specified in procedures manual Use of specific DSS e.g. centrally designed spreadsheet</td>
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<tr>
<td>Uncertainty</td>
<td>Consensus achieved by self selected team with shared interest in project and wide consultation, externally as well as internally</td>
<td>Consensus not sought other than at top level</td>
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<td></td>
<td>Emphasis placed on compliance with a top-down process</td>
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**SID Process**

- Selection & profile of participating managers
  - High level participation of CIMA members in all stages of SID process
- Group decision support techniques
  - Mainly spreadsheets, designed centrally or locally
- Capacity to manage consensus
  - Need for wider consultation, clearer specification of strategic objectives and more testing of assumptions

Source: Harris, Emmanuel and Komakech (2009, p.43)
Figure 2 SST Framework for SIDM research

People (agents)

Agents-in-focus (identity, role & traits of managers involved directly in making decisions or shaping proposals)

Agents-in-context (plurality of external stakeholders who set conditions for action via external structures & enable or constrain decisions)

External (Business environment)

External structures (PESTLE factors, inc. market conditions & sources of funding, ownership structures & top down strategy)

SIDM practice

Process (structures)

Internal (managerial judgement)

Internal structures (general dispositions and habitus of agents-in-focus, sharing of information, cognition & consensus)
Table 1 SIDM case analysis from prior literature

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