A Model of Strategic IT Decision-Making Processes

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Abstract

This paper presents a new model of strategic IT decision-making processes based on reviews of the management and strategic IT decision-making literature. Strategic IT decisions are important and infrequent IT-related decisions made by the top leaders of an organization that have, or potentially have, a major impact on organizational health and survival. It is argued that if the decision-making processes behind strategic IT decisions are better understood, it may be possible to make better decisions, reduce cost overruns, and/or explain why some major IT-related projects have struggled to realize expected benefits.

Keywords

Strategic IT decision making, strategy process, rationality, intuition, politics.

INTRODUCTION

Senior executives in both public and private organizations sometimes need to make strategic IT decisions. Strategic IT decisions are important and infrequent IT-related decisions made by the top leaders of an organization that have, or potentially have, a major impact on organizational health and survival[1]. Such decisions are challenging because there is often huge uncertainty about many aspects of the proposals under consideration, including both costs and expected benefits. Table 1 lists three examples of Australian strategic IT decisions and their outcomes. The systems resulting from all three decisions are now working more or less as intended, but they took much more time and effort than expected. In fact, all three cost over A$1B—at least twice as much as originally budgeted. All had problems in implementation. All were, therefore, much discussed in the Australian press. Despite the far-reaching consequences of such decisions, there has been little IS research into strategic IT decision-making. Our interest in this paper is in the decision-making processes that lead to strategic IT decisions. With that goal in mind, the research question that we seek to answer in this paper is:

What are the primary factors that affect strategic IT decision-making processes?

Table 1: An Overview of Three Australian Strategic IT Investment Decisions and Their Outcomes

(1)	In 2002, John Fletcher, the CEO of Coles Myer Ltd, announced a major IT-enabled transformation project intended to double the profitability of Coles Myer in five years. Five years later, in 2007, after spending A$1.2B on transformation-related IT projects, the transformation had failed to deliver the expected benefits within the expected timeframe, and Coles was taken over by Wesfarmers.
(2)	In 2008, Ralph Norris, the CEO of Commonwealth Bank of Australia (CBA), announced a plan to move the bank from its 30-year old legacy core-banking engine to a new SAP-powered system. Six years later, in 2014, after spending over A$1.1B on the upgrade, the new system is reported (by CBA) to be "streets ahead of its rivals", and its CIO, Michael Harte, has just accepted a new job as CIO of Barclays Bank in the UK.
(3)	In 2004, the Victorian Government's newly formed Transport Ticketing Authority completed its business case to replace the aging Metcard ticketing system with a new smartcard system named Myki, originally forecast to cost A$749.1M. About A$1.5B had been spent on Myki when it finally fully replaced the Metcard system on 29 Dec 2012, more than five years behind schedule.

[1] This definition is based closely on Eisenhardt and Zbaracki's (1992) definition of "strategic decision". It is also consistent with the definition of strategic IT decision in Ranganathan and Sethi (2002).

We have chosen to study strategic IT *decision-making processes* because there has been little IS research in this topic area. Yet, as illustrated by the examples in Table 1, such decisions lead to costly and complex organizational change programs. Such programs require huge efforts by an organization's IT staff, contractors, and vendors, and leave a legacy of major systems that affect the organization in question (and ultimately, human lives) for many years. If the decision-making processes behind these decisions are better understood, it may be possible to make better decisions, reduce cost overruns, and/or explain why some major IT-related projects have struggled to realize expected benefits.

Our efforts to answer the research question above resulted in the development of the new model of Strategic IT Decision-making (SITDM) shown in Figure 1. Terms used in Figure 1 are defined in Table 2. The arrows mean "influence" or "affect". Briefly, the model posits that the three bundles of concepts on the left, namely, Decision Context, Top Management Team, and Decision-Specific Characteristics, influence both (a) the Nature of the SITDM Process (determining the extent to which the process is analytical, intuitive, and political), and (b) the Strategic Decision(s) flowing from that process. The two constructs at the bottom right of Figure 1, Organizational Outcomes and Factors Affecting Strategic IT Decision Implementation, have been included to recognize that implementation issues surrounding execution of strategic IT decisions also influence Organizational Outcomes (poor implementation leads to poorer outcomes). However, due to space limitations and our primary focus on the decision process, these two constructs have been shown in dotted lines and are not discussed further in this paper.

This new model in Figure 1 is based on extensive reviews of both (a) the management literature on strategic decision-making (not "IT" decision-making), and (b) the IS literature on strategic IT decision-making. The goal for this paper is to introduce, explain, and justify this model. We are currently in the process of empirically evaluating this model using case studies of strategic IT decision-making in large Australian organizations, and plan to report on these findings in a later paper.

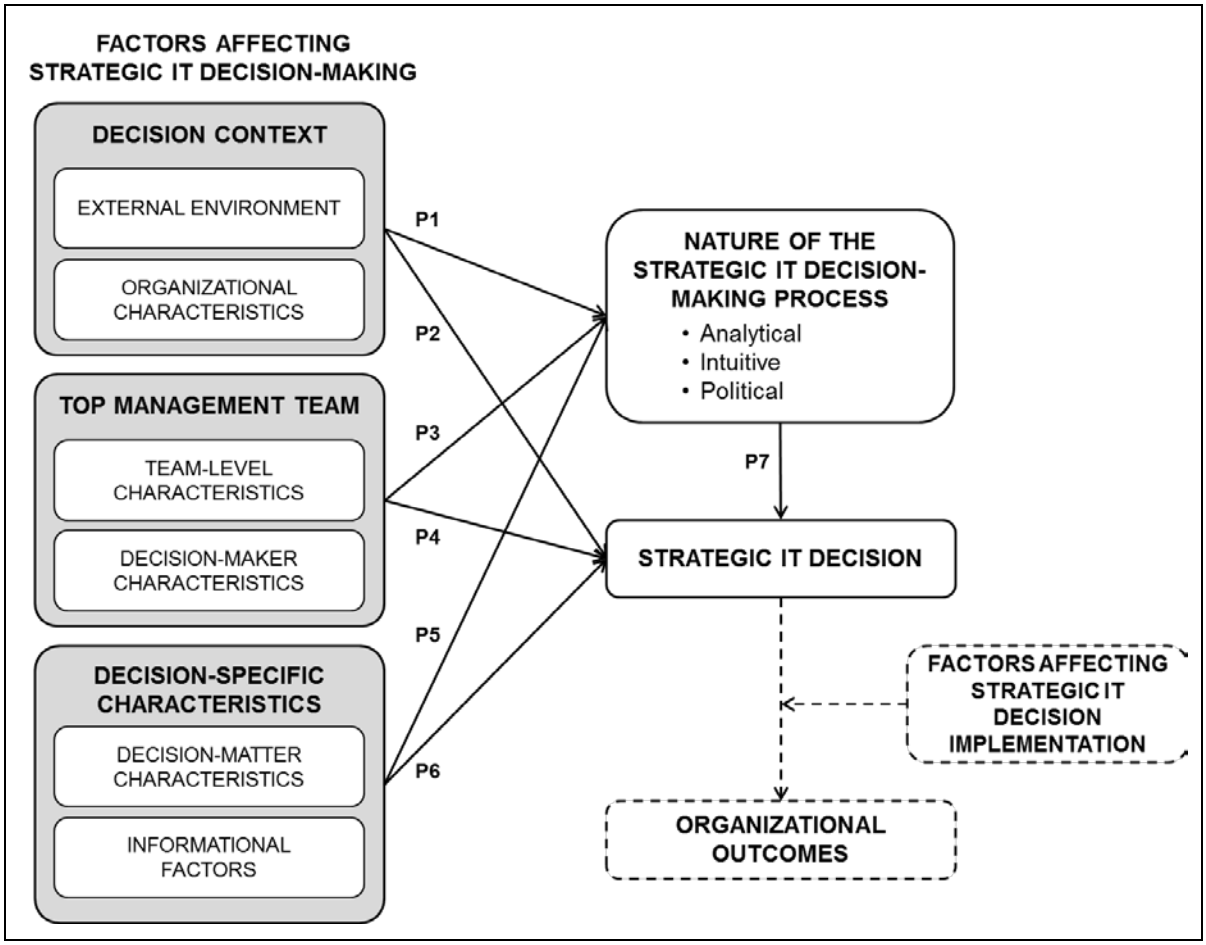

Figure 1. A Strategic IT Decision-Making Model (SITDM Model)

Table 2. Definitions of Constructs in the Strategic IT Decision-making (SITDM) Model

Construct	Definition
Decision Context	*Decision Context* refers to the nature of the environment in which the decision is made.
External Environment	*External Environment* refers to the characteristics of the *external* environment in which the organization operates, e.g., national culture, legislation, economic climate, environmental dynamism, and munificence (Elbanna 2006; Shepherd and Rudd 2014).
Organizational Characteristics	*Organizational Characteristics* refer to the *internal* characteristics of the organization, e.g., organizational culture, routines, processes, and governance (Carpenter et al. 2004; Eisenhardt and Zbaracki 1992; Shepherd and Rudd 2014).
Top Management Team (TMT)	The *Top Management Team* (TMT) is the group of senior executives that determines strategic directions of the organization.
Team-Level Characteristics	*Team-Level Characteristics* refer to the *collective* characteristics of the TMT, e.g., team diversity (demographic, cognitive), size, team dynamics and routines, behavioral integration, and power distribution.
Decision-Maker Characteristics	*Decision-Maker Characteristics* refer to the *individual* characteristics of each TMT member that affect their perceptions of the decision problem, approaches to problem solving, and ability to influence others, e.g., cognitive style, personality, personal values, aspirations, incentives, and overconfidence (Carpenter et al. 2004; Shepherd and Rudd 2014).
Decision-Specific Characteristics	*Decision-Specific Characteristics* refer to the *characteristics of, and information relevant to*, the specific strategic decision of interest.
Decision-Matter Characteristics	*Decision-Matter Characteristics* refer to the *inherent nature of the decision problem*. This can affect the options available to the TMT and/or their propensity to act in a certain way, e.g., decision importance, time pressure, motive (opportunity or threat), complexity, and politicality (Shepherd and Rudd 2014).
Informational Factors	*Informational Factors* refer to the information pertinent to the strategic decision that is provided to, or encountered by, some or all of the TMT members and that affects their understanding of the decision problem and/or their preferred course of action. Sources of such information include internal analyst reports, opinions of peers, consultant advice, precedents and competitor actions, and press reports on technologies, their adoption, and economic outlook.
Nature of the Strategic IT Decision-making Process	*Nature of the Strategic IT Decision-Making Process* refers to the characterization of the decision process under three dimensions: (1) analytical, (2) intuitive, and (3) political (Elbanna 2006). Other related characteristics of SDM processes include: formality, comprehensiveness, dissention, and tolerance of ambiguity (Shepherd and Rudd 2013).
Analytical SDM	*Analytical Strategic Decision-making* (SDM) refers to the degree to which the SDM process relies on rational factors, e.g., causal models and evidence-based decision-making.
Intuitive SDM	*Intuitive Strategic Decision-making* (SDM) refers to the degree to which the TMT members rely on personal and/or collective intuition or "gut feel" in reaching their final decision (Akinci and Sadler-Smith 2012).
Political SDM	*Political Strategic Decision-making* (SDM) refers to the degree to which SDM process is characterized by political behavior (e.g., coalitions, information tactics, use of external advisors) (Eisenhardt and Zbaracki 1992).
Strategic IT Decision	*Strategic IT decisions* are the important and infrequent IT-related decisions made by the top leaders of an organization that have, or potentially have, a major impact on organizational health and survival (based on Eisenhardt and Zbaracki (1992)).

LITERATURE REVIEWS

(A) Insights from the Management Literature on Strategic Decision-making

Strategic decision-making (SDM) processes have been the subject of comprehensive literature reviews in the management literature by Eisenhardt and Zbaracki (1992), Elbanna (2006), and Shepherd and Rudd (2014). We also found two other valuable reviews focused on more specific aspects of SDM processes, namely Akinci and Sadler-Smith's (2012) review of the role of intuition in SDM, and Carpenter et al.'s (2004) review of the "Upper Echelons Theory" (i.e., the decision-team-dependent factors that shape strategic decision-making).

The most recent review, by Shepherd and Rudd (2014), provides an up-to-date, detailed, and comprehensive literature review of 49 empirical studies of SDM processes published in the management literature from 1980 to 2012. Studies that did not focus explicitly on SDM processes were excluded. Their review is organized around four bundles of what they call "contextual variables", namely Top Management Team (TMT), Strategic Decision Specific Characteristics, External Environment, and Firm Characteristics. These four bundles are very similar to those in Papadakis et al. (1998, Figure 1, p. 121) and Rajagopalan et al. (1993, 1998), i.e., they have changed very little in the last 20 years. Shepherd and Rudd (2014) describe these four factors as "contextual" because their focus is on characteristics of the SDM Process (such as rationality and comprehensiveness).Our SITDM model in Figure 1 is very similar to Shepherd and Rudd's (2014) more detailed Figure 1. All four of Shepherd and Rudd's (2014) contextual variable groups on the left of their Figure 1 are also shown on the left of our Figure 1. However, following Papadakis et al. (1998), we grouped External Environment and Firm Characteristics under the heading "Decision Context" in the top left of our Figure 1. Also like Shepherd and Rudd, our SITDM model shows a "dependent" variable related to the Nature of the Strategic Decision-making Process on the right of the model. However, rather than simply replicating Shepherd and Rudd's list of 21 characteristics of SDM processes (e.g., formality, comprehensiveness, conflict, dissention, tolerance of ambiguity), we have chosen to focus on the three highlighted by Elbanna (2006). Elbanna's (2006) review of 34 empirical papers in the management literature (many of which were later also reviewed by Shepherd and Rudd) focused on three key aspects of strategic decision-making processes: rationality (15 empirical papers from 1984-2005), political behavior (14 papers), and intuition (11 studies). Eisenhardt and Zbaracki's (1992) review of 48 empirical papers from 1970-1990 also focused on rationality versus political strategic decision-making, though it did not discuss the role of intuition in such decisions. However, Akinci and Sadler-Smith's (2012) review of 26 papers on the role of intuition in management research provides clear strong reasons for including intuition as an important dimension of strategic decision-making processes: three authors whose work they review were awarded Nobel prizes, in 1978, 1981, and 2002!

(B) Insights from the IS literature on Strategic IT Decision-making

There are no comparable reviews of strategic *IT* decision-making processes in the IS literature, so we conducted our own. First, we used Google Scholar to search for various combinations of the terms "strategic", "information systems/technology" (and the acronyms "IS/IT"), "decision-making", "decision process", and "decision". Second, we expanded the search to include "project evaluation", "investment evaluation", "outsourcing", "enterprise systems", "business transformation", in combination with the IS-related and decision-related keywords listed earlier. Third, we examined references cited by studies from Steps 1 and 2. The result was the list of 40 papers shown in Table 3. It would have been possible to continue searching for more papers, but the list in Table 3 was sufficient for assessing the relevance of the factors in the SITDM model in the context of the IS literature.

We used the constructs in the SITDM Model (which, as just explained, come from the management literature) as the organizing framework for analyzing the papers in Table 3. Our analysis examined three questions. The first was whether the selected IS studies discussed the three groups of factors on the left of Figure 1, i.e., Context, Top Management Team, and Decision-Specific factors. The second question was whether the IS studies discussed the analytical, intuitive, and/or political nature of the SDM process. Finally, our third question asked if the paper was prescriptive or descriptive. We defined prescriptive studies as those that focused on how strategic decisions *should* be made, and descriptive studies as those that focused on how strategic decisions are *actually* made in practice.

All 40 papers in Table 3 were analyzed by the first author of this paper. In addition, 14 papers (i.e., 35% of the total) were independently second-coded by the three co-authors (nine by the third author and five by the fourth author). The initial percentage of agreement across the 98 double-coded cells of Table 3 was 88%. The authors then met to discuss and reconcile the coding of the 12 remaining cells. As a result, eight of the first author's coding results were modified. Due to the high level of final agreement on the first author's coding results (i.e., 92%), further double-coding was deemed unnecessary.

Results of our analysis are shown in Table 3. A "Y" means that the construct was evident in the paper, though not necessarily discussed in any depth. The totals in the bottom row of Table 3 simply report the number of papers (out of 40) where the construct was discussed. It is evident from these counts that many of the same constructs identified in the management literature on SDM processes are also mentioned in the IS literature. In addition, as Boonstra (2003) has also reported, the search process showed that despite the importance of strategic IT decisions, there has been very little IS research on strategic IT decision-making per se. We could find only seven papers is the IS literature that could be classified as focused on IT SDM *processes* (see code "SDMP" in Table 3), and within those papers, there are no models similar to Figure 1.

Table 3: Selected IS Literature on Strategic IT Decision-making

Reference	Key Theme*	Factors Affecting SITDM			Nature of SITDM Process			Focus
		Context	TMT	Decision-Specific	Analytical	Intuitive	Political	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Karsak & Özugul (2009)	ES			Y	Y			P
Bannister & Remenyi (2000)	ITEVAL	Y	Y		Y	Y	Y	D
Frisk et al. (2014)	ITEVAL		Y		Y	Y	Y	P
Gunasekaran et al. (2006)	ITEVAL	Y		Y	Y			P
Howcroft & McDonald (2007)	ITEVAL	Y	Y	Y	Y	Y	Y	D
Irani & Love (2002)	ITEVAL	Y		Y	Y			P
Renkema & Berghout (1997)	ITEVAL	Y		Y	Y			P
Tallon & Kraemer (2007)	ITEVAL	Y	Y		Y	Y		D
Weill & Olson (1989)	ITEVAL				Y		Y	D
Xue et al. (2008)	ITGOV	Y		Y	Y		Y	D
Aubert et al. (2012)	ITO	Y		Y	Y			D
Cheon et al. (1995)	ITO	Y		Y	Y			D
Grover et al. (1994)	ITO	Y		Y	Y			D
Hall & Liedtka (2005)	ITO	Y	Y		Y		Y	D
Kahraman et al. (2009)	ITO			Y	Y			P
Ketler & Walstrom (1993)	ITO	Y		Y	Y			D
Lacity et al. (2011)	ITO	Y	Y	Y	Y		Y	D
McFarlan & Nolan (1995)	ITO	Y		Y	Y		Y	D
Miranda & Kim (2006)	ITO	Y	Y	Y	Y	Y	Y	D
Nam et al. (1996)	ITO	Y		Y	Y		Y	D
Teng et al. (1995)	ITO	Y			Y			D
Udo (2000)	ITO	Y		Y	Y		Y	P
Sabherwal & Grover (2010)	ITPROJ		Y		Y		Y	D
Stewart & Mohamed (2002)	ITPROJ	Y		Y	Y			P
Kanungo et al. (2001)	ITSTR	Y	Y		Y			D
Boonstra (2003)	SDMP	Y			Y	Y	Y	D
Grover et al. (1998)	SDMP	Y	Y		Y			D
Ranganathan & Sethi (2002)	SDMP	Y	Y		Y		Y	D
Sabherwal & King (1992)	SDMP	Y	Y		Y		Y	D
Sabherwal & King (1995)	SDMP	Y		Y	Y		Y	D
Vetter et al. (2011)	SDMP		Y		Y	Y		D
Waema & Walsham (1990)	SDMP	Y	Y		Y	Y	Y	D
Bai & Lee (2003)	SISP	Y	Y		Y			D
Córdoba (2009)	SISP		Y	Y	Y			P
Hackney & Little (1999)	SISP	Y			Y	Y	Y	D
Lederer & Salmela (1996)	SISP	Y		Y	Y			P
Lee & Pai (2003)	SISP	Y	Y		Y		Y	D
Newkirk et al. (2008)	SISP	Y		Y	Y			D
Segars et al. (1998)	SISP	Y			Y			P
Segars & Grover (1999)	SISP	Y	Y		Y	Y	Y	D
Count	40	33	18	21	40	10	20	D:29

* Themes: Enterprise Systems (ES), IT Evaluation (ITEVAL), IT Outsourcing (ITO), IT Projects (ITPROJ), IT Strategy (ITSTR), SDM Process (SDMP), Strategic IS Planning (SISP), and IT Governance (ITGOV).

DEVELOPING THE SITDM MODEL PROPOSITIONS

To this point in this paper we have argued that (1) strategic IT decisions lead to huge expenditure on IT-based systems that have major consequences for the organizations concerned (including huge amounts of work for the organizations' IT functions and partners, as well as considerable change for the users in the organizations involved), (2) the key factors that affect strategic-decision-making processes identified in the management literature are captured by the model in Figure 1, and (3) although similar factors to those in Figure 1 have been discussed (at least in passing) in the IS literature, no model comparable to the SITDM model has been presented in the IS literature. We now discuss, explain, and justify why the SITDM in Figure 1 is likely to be helpful for understanding strategic IT decision-making processes.

As noted above, the SITDM model in Figure 1 posits that the three bundles of concepts on the left of the figure, namely, Decision Context, Top Management Team, and Decision-Specific Factors influence both (a) the Nature of the SITDM Process (determining the extent to which the process is analytical, intuitive, and political), and (b) the Strategic Decision(s) flowing from that process. We now examine each of these five constructs in turn.

Decision Context

Decision Context—consisting of External Environment and Organizational Characteristics—is the dominant factor emerging from Shepherd and Rudd's (2014) extensive review of the management SDM process literature. External Environmental factors include uncertainty and change, munificence (the abundance or scarcity of resources), and national culture (Elbanna 2006; Shepherd and Rudd 2014). Organizational Factors include power centralization, structure, size, performance, and organizational traditions and norms (Carpenter et al. 2004; Eisenhardt and Zbaracki 1992; Shepherd and Rudd 2014).

In the IS literature, 33 of the 40 papers in Table 3 mention Decision Context issues. The most frequently mentioned topic in the IS literature was environmental and firm-level uncertainty and change, particularly in relation to IT outsourcing decisions (e.g., Aubert et al. 2012; Cheon et al. 1995; Miranda and Kim 2006), but also in the context of IT SDM more broadly (Newkirk and Lederer 2006; Newkirk et al. 2008; Sabherwal and King 1995). Other Decision Context factors mentioned in the IS literature include firm munificence (Hall and Liedtka 2005), centralization (Ranganathan and Sethi 2002; Sabherwal and King 1995; Wang and Tai 2003), organization size (Sabherwal and King 1995), organizational culture (Kanungo et al. 2001), norms and regulations (Miranda and Kim 2006), information intensity of the firm and/or its industry (Grover et al. 1994; McFarlan and Nolan 1995), IT-unit structure (Ranganathan and Sethi 2002), IT-unit maturity (Sabherwal and King 1995; Teng et al. 1995), and level of integration of IS and corporate planning (Grover et al. 1998).

Based on the importance of Decision Context in affecting SDM processes in both the management and the IS literature, we feel confident in proposing the following two propositions:

P1: Both the External Environment and Organizational Characteristics dimensions of Decision Context influence the Nature of the Strategic IT Decision-making processes in an organization, especially the extent to which they are analytical, intuitive, and political.

P2: Changes in the External Environment and Organizational Characteristics dimensions of Decision Context may result in the Top Management Team making different strategic IT decisions.

Top Management Team

Shepherd and Rudd (2014) did not distinguish between team-level and individual-level characteristics of the top management team, but we decided to do so in the SITDM model in order to differentiate between the team dynamics and the characteristics of the decision makers as individuals (see the Top Management Team box in Figure 1). Team-Level Characteristics studied in the SDM management literature include demographic and cognitive diversity (Miller et al. 1998; Shepherd and Rudd 2014), team size (Carpenter et al. 2004; Shepherd and Rudd 2014), behavioral integration (Carpenter et al. 2004), power distribution (Eisenhardt and Zbaracki 1992; Finkelstein 1992), and cognitive and affective conflict (Amason 1996). Individual Decision-Maker Characteristics considered in past studies include demographics (e.g., tenure, education, age), psychometrics (e.g., personality, cognitive style, ability, and biases), individual goals and incentives, personal values and affect, and prior experiences (Carpenter et al. 2004; Shepherd and Rudd 2014).

In the IS literature, despite calls for IS scholars to explore the psychological and social aspects of IT SDM (Bannister and Remenyi 2000; Waema and Walsham 1990), and although a number of studies emphasize the need for stakeholder involvement and dialogue for the success of IT SDM (e.g., Bai and Lee 2003; Lee and Pai 2003; Tallon and Kraemer 2007), few IS studies have examined in detail the nature and impact of either team-level interactions or individual-level characteristics. The factors that have received some attention include

executive compensation (Hall and Liedtka 2005), cognitive structures (Miranda and Kim 2006), shared domain knowledge (Ranganathan and Sethi 2002), and overconfidence of decision makers (Vetter et al. 2011).

Based on the importance of factors related to Top Management Team in the SDM management literature we feel confident to posit that:

P3: Both Team-Level and Individual-Decision-Maker characteristics of the Top Management Team influence the Nature of the Strategic IT Decision-making processes in an organization, especially the extent to which they are analytical, intuitive, and political.

P4: Changes in the Team-Level and Individual-Decision-Maker characteristics of the Top Management Team may result in the Top Management Team making different strategic IT decisions.

Decision-Specific Characteristics

Shepherd and Rudd's (2014) review reported only 8 papers that address Decision-Specific Characteristics, e.g., decision matter, uncertainty, motive (opportunity or threat), importance, time pressure, and frequency. However, Shepherd and Rudd (2014) deliberately excluded studies that did not focus explicitly on SDM *process*, while decision-specific factors can often be found in studies focused on particular kinds of strategic decisions (e.g., mergers and acquisitions, sourcing, market entry, etc.).

In the IS literature, we only found a single IT SDM *process* study (i.e., Sabherwal and King 1995) that explicitly considered a Decision-Specific Factor, namely the strategic impact of the planned IS application investment. However, many IS studies not explicitly focused on SDM process discuss Decision-Specific Factors. For example, a number of IT outsourcing studies examine asset specificity, frequency, and uncertainty from transaction-cost economics (TCE) (Lacity et al. 2011), as well as decision complexity, measurement problems, required technical and business skills, interdependencies, and motivation (Aubert et al. 2012; Lacity et al. 2011). Prescriptive studies discuss various Informational Factors. For example, Gunasekaran et al. (2006) list 17 categories of informational factors that can be used in IT investment justification (e.g., strategic impact, economic concerns, social implications, technology assessment, adaptability, and financial measures). In addition, a number of studies have identified types of informational factors to consider in strategic IT decisions (e.g., Irani and Love 2002; Kahraman et al. 2009; Karsak and Özogul 2009; Stewart and Mohamed 2002).

Based on the importance of Decision-Specific Characteristics in both the SDM-process management literature and the IS literature we feel confident to posit that:

P5: Both Decision-Matter and Informational Characteristics of the specific strategic proposal under consideration influence the Nature of the Strategic IT Decision-making processes in an organization, especially the extent to which they are analytical, intuitive, and political.

P6: Changes in the Decision-Matter and Informational Characteristics of the specific strategic IT proposal under consideration may result in the Top Management Team making different strategic IT decisions.

Strategic Decisions and Nature of the Strategic IT Decision-making Process

In the SITDM model in Figure 1 we identified three key aspects of strategic IT decision-making processes: rational, intuitive, and political. According to Elbanna (2006), both the analytical-rational and political perspectives of SDM have received extensive attention in the management research. As also documented by Eisenhardt and Zbaracki (1992), these are clearly most important aspects of top-management decision-making. As noted earlier, intuitive aspects of SDM processes have been less explored, but are gaining increased attention from management scholars (Elbanna 2006).

In the IS literature, the analytical-rational perspective is clearly dominant. Almost all papers we reviewed (see Table 3) recognized the analytical aspects of IT SDM, and in the majority of the papers the analytical perspective was the dominant (or only) aspect considered. In a review of power and politics in the IS literature, Jasperson et al. (2002) summarized 82 articles, however, only five of those focused on decision-making and only two on strategic IT decisions (Sabherwal and King 1992; Weill and Olson 1989). Papers mentioning power and politics in a strategic decision-making context (see Table 3) include: Sabherwal and Grover (2010), Sabherwal and King (1995), Ranganathan and Sethi (2002); and Waema and Walsham (1990). Finally, as shown in Table 3, the intuitive aspects of SDM have received the least attention in the IS literature. In our sample, three papers discuss the importance of investigating intuition in the context of IT SDM (e.g., Bannister and Remenyi 2000; Boonstra 2003; Waema and Walsham 1990), and five empirical IS studies explore the role of intuition in IT SDM in some detail (Frisk et al. 2014; Hackney and Little 1999; Miranda and Kim 2006; Tallon and Kraemer 2007; Vetter et al. 2011).

The papers mentioned in the two paragraphs above show clearly the importance of all three aspects of strategic IT decision-making processes—rational, intuitive, and political—identified in Figure 1. We therefore feel confident to posit that:

P7: The extent to which the strategic IT decision-making processes in an organization are analytical, intuitive, and political influences the strategic decisions that emerge from these processes, though to different degrees in different decision contexts.

CONCLUSION

Strategic IT decisions, such as those in Table 1, lead to large expenditure on IT-based systems that have major consequences for the organizations concerned, including vast amount of work for the organizations' IT functions and partners, as well as considerable change for the users in the organizations involved. Because of their wide-ranging consequences, we argue that it is important to understand the actual processes involved in strategic IT decision-making. Perhaps, if the processes are better understood, both the quality of those decisions, and the riskiness of those decisions, can be improved.

With that goal in mind, in this paper we have developed a model of factors influencing strategic IT decision-making (SITDM), summarized in Figure 1. This model is primarily based on the synthesis of the management literature on strategic-decision-making processes. Although similar factors to those in Figure 1 have been discussed (at least in passing) in the IS literature, no model comparable to SITDM has been presented in the IS literature. The preceding sections of this paper have presented evidence from both the management and IS literature supporting the inclusion of the various factors shown in Figure 1. We hope that the model and the literature analysis provides a useful stepping stone for future research on the rich facets of strategic IT decision-making processes, and the various factors that affect these processes in their full complexity. The analysis also points to some differences between the management and IS literatures that might be worth exploring in future research. For example, there are only a few articles that recognize or examine the intuitive aspects of strategic IT decision-making, while the importance of this dimension is emphasized in the management literature.

We are currently collecting empirical evidence to evaluate the SITDM model in Figure 1 and expect to be able to report results from those interviews within the next year.

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