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Understanding strategy assessment in IS management

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Abstract

In our research, we suggest a process theory for explaining the strategy assessment process and its effect in information systems (IS) planning. The proposed theory is derived from an analysis of practitioners and the practices they employ. Based on a multiple-case study design, we look at the IS management teams of three corporate IS departments and how they prepare for strategy development. The analysis of the projects reveals a stable pattern of activities employed by the three teams to assess their departments' strategic positions and existing strategy. Along with this procedural understanding, our research also produces a detailed look at the outcomes of these managerial practices.

Keywords IS management · IS strategy · Strategy assessment · Process theory · Case study

1 Introduction

Information Systems management (ISM) in a corporate context is subject to constant change. During the last decades, the role of the IS department has evolved from providing technology to becoming a service partner of the business (Urbach et al. 2016). Today, IS is increasingly driving business and more and more aspects of a company are thought of as being inherently digital: from operating models (Bollard et al. 2017) to entire business models (Hess et al. 2016) and into topics as central to a company's survival as digital innovation (Nambisan et al. 2017). Consequently, IS

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management is no longer responsible for just an isolated, functional strategy. Rather, strategic planning in IS seems to be completing a process that transforms it from just a master plan of the IS function into a genuinely shared view of the role of information and information systems within the organization (Chen et al. 2010), eventually striving for a truly digital business strategy (Bharadwaj et al. 2013).

While the trends that contribute to this ongoing shift in the organizational role of IS departments have been intensely studied by extant research on ISM, the study of their implications has only seen a few seminal contributions. For instance, Galliers (2004) analyzes how the strategic aspects of ISM have evolved since the 1960s. More recently, Chen et al. (2010) integrate some of the scattered perspectives in the field. Their analysis, however, focuses on the product of strategizing, that is, strategy itself; an observation that also applies to the treatment of digital business strategy provided by Bharadwaj et al. (2013). In contrast, Chen et al. (2010) show that the process of strategy development – that is, strategizing – has not been studied intensely despite the impact of the macro trends discussed above. In fact, the lack of research on the managerial and organizational factors that shape and are shaped by IS strategizing has been in a relative paucity for quite some time now – an observation that holds as true today as when it was originally proposed by Galliers (2004). Specifically, the process of managing IS departments as emancipated yet aligned parts of their corporations continues to be under-researched (Grover and Segars 2005), despite growing needs in the industry. Consequently, practitioners find little guidance in understanding why certain practices in strategizing in IS might help them in their strategic planning and management activities (Mocker and Teubner 2006). In fact, “*the academic discussion is far from practical concerns*” (Mocker and Teubner 2007, p. 1). To narrow this divide, we are aiming at better understanding the process of strategy assessment in contemporary IS organizations in terms of what this process consists of, what drives the process, and what the outcomes of this process are.

In this context, we study how three teams of IS executives approach the task of strategy development. The focus on the interactions and processes on the team level is inspired by Banker and Kauffman (2004, p. 288) who suggest that research should “*seek to formulate stronger theoretical bases for the contexts in which it offers explanatory and interpretive models of [...] group [...] behavior associated with the management of IS*” (p. 288). Such a focus on the role of groups in managing IS is important because the complexity, dynamism, and ambiguity of strategic decision making problems at this level often exceed the knowledge and capability of any one person alone (Mason and Mitroff 1981). This is particularly true when preparing for strategic planning by gathering and assessing information pertinent to the strategically relevant context of an IS department as well as making sense of this information as a group. We subsume these preparatory activities under the term *strategy assessment*.

In this context, the objective of our study is two-fold. First, we seek to extract common activities that IS executive teams engage in when conducting strategy assessment. By analyzing the procedures employed at three very different case study host organizations, we aim at identifying systematic commonalities across the cases to unearth the procedural core of strategy assessment, that is, what is it that teams

actually do when preparing for strategic planning, how do they do so, and are there any larger patterns discernible among these activities. While we are able to identify patterns that are relatively stable, our discussion below also reveals that one of the companies studied (Beta) failed to produce any meaningful input for the strategic planning processes, despite also showing patterns of activity sufficiently similar to those of the other two companies studied. This, second, alerts us to the need of opening the black box of strategy assessment, expanding our theorizing beyond *what* is done and *how* so and explicitly taking into account *which* effects it has and *why* these effects matter.

Following the taxonomy of Gregor (2006), our efforts result in a type II theory (theory for explaining). We explicitly do not focus on the success of IS strategy implementation or IS strategy overall, but rather on an exploratory analysis of the strategy assessment processes the three case teams went through. Rather, our research's contribution is the extension of current insights on procedures for IS strategizing by explicitly investigating how strategy assessment is carried out and what doing it does to the participating stakeholders in turn. This provides a revelatory look into the black box of managerial actions in that field. We also aim for practical implications by helping executives of organizational IS departments to understand how and why a strategy assessment contributes to the success of their strategies as well as providing actionable advice on one possible strategy to attain these positive effects.

To address our research objective, this paper is structured as follows: First, we review and synthesize related research and develop a conceptual lens to enable the identification and analysis of strategy assessment practices used by the IS management teams we are studying. We then introduce our research design that uses this conceptual foundation to generate data. Based on both within and cross case analysis, the section on our study's findings then introduces a process-perspective on the strategy assessment practices as observed in the systematic similarities and differences of the cases. These findings are also enfolded with extant literature. We conclude the paper by considering the study's limitations and discussing its theoretical and managerial implications.

2 Conceptual foundations

2.1 IT strategy in the digital age

Until the early 2000s, the focus of corporate ISM was often placed on the development and operation of information technology (IT) itself – the classical “plan, build, run” paradigm (Zarnekow et al. 2005). Strongly influenced by the industrialization and commoditization of IT (Gartner 2008; Herzwurm and Mikusz 2008; Walter et al. 2007) as well as the service-orientation in the planning, production, and delivery processes of IS departments (e.g., Cherbakov et al. 2005; Demirkan and Goul 2006), this technology-oriented, reactive management pattern began to move to the background (Feridun and Rodosek 2003). During the last couple of years – the rise of the so-called digital age – IS and IT have even developed into a game changer for

the business (McDonald and Rowsell-Jones 2012). Innovative technologies exert a significant influence on processes, products, services, and business models (Fitzgerald et al. 2013) and so-called digital transformation is grabbing a hold of more and more industries (Wade 2015). As a result, we argue that the strategic importance of ISM has grown, making a more proactive and flexible approach to ISM necessary.

Early evidence of this shift emerged over two decades ago, when academics started describing a shift in the organizational roles of IS departments: from systems analysts to business consultants (Cross et al. 1997), from a mere supporting function to a business partner (Earl and Sampler 1998). This move toward what has been described as a more integrated and harmonious relationship between the IS department and the rest of the organization (Galliers and Sutherland 2003) does, however, require management skills beyond “plan, build, run” to manage IS in organizations (Galliers 2004; Segars and Hendrickson 2000). It is this development that now surfaces in the actual practices of IS professionals. In fact, the share of IS departments that are only seen as technology-oriented cost centers started decreasing a decade ago and the need for a strategically emancipated IS departments has been growing correspondingly ever since (Nash 2011, 2012).

Currently, research is in the process of understanding the digital business transformation and its implications for IS departments (e.g., Hess et al. 2016; Mueller and Lauterbach 2020). As a result, new challenges such as the need for creating technological innovations, a faster time-to-market, and organizational flexibility need to be addressed with new structures, processes, and management approaches and require strategic adjustments (Alt et al. 2020; Urbach et al. 2019).

2.2 The process of strategizing

Strategizing in IS has been discussed by researchers and executives for over three decades (e.g., Brancheau and Wetherbe 1987; Dickson and DeSanctis 1990; Hartog and Herbert 1986). Throughout this work, a general distinction between the *products* and *processes* of ISM can be found (e.g., Das et al. 1991; Riempp et al. 2008; Sabherwal and Chan 2001).

As indicated above, our research strongly focuses on the process of strategizing rather than on strategy itself. In investigating the process of strategizing in IS, prior work looks at this process in general management and links it to the strategy process specific to IS (e.g., Galliers and Sutherland 2003; Kovacevic and Majluf 1993; Waema and Walsham 1990). In this vein, strategic decision-making is interpreted as exchanging, processing, and acting on information; that is, decision makers obtain, interpret, and act on information to render a decision, develop implementation action plans, and implement the decision successfully (Dooley and Fryxell 1999; Leifer and Mills 1996; Mintzberg and Lampel 1999). Accordingly, strategic management can be conceptualized as a cyclical process consisting of distinct steps (Table 1).

Most approaches present in the literature show a sequence of three steps: analysis, formulation, and implementation. The step we focus on is the first and will be referred to as *strategy assessment*. It covers the analytical part that either prepares strategy formulation or evaluates strategy to prepare for the next planning cycle. In

Table 1 Exemplary phases of strategic management

<i>Sources</i>	<i>Phases</i>					
Andrews (1987)	Formulation			Implementation		
David (2007)	Strategy formulation		Strategy Implementation		Strategy Analysis	
de Wit and Meyer (2010)	Strategy Analysis		Strategy Formulation		Strategy Implementation	
Kaplan and Norton (2008)	Develop Strategy	Translate Strategy	Plan Operations	Execute Processes and Initiatives	Monitor and Learn	Test and Adapt Strategy
Mintzberg et al. (2003)	Strategy Formulation		Strategy Implementation		Strategy Evaluation	
White (2004)	Formulating Strategy		Implementing Strategy		Monitor strategic Performance	

particular, studying such strategy assessment is important because it allows us to shed light on how the management teams we focus on build a shared understanding of their department's strategic position through strategy assessment and what implications can be derived for strategizing in their ISM approach.

2.3 Strategizing in IS management

Strategy assessment as the foundation of strategizing seems to be at the heart of the extant literature on IS strategizing as well. Since the early contributions in the field – such as King's (1978) strategic planning for MIS, Zachman's (1982) business systems planning, or Rockart's (1979) critical success factors – much of the procedural research on IS strategizing was conducted under the label of strategic information systems planning (SISP) (Lederer and Salmela 1996; Premkumar and King 1991). Starting in the 1970s and 1980s, SISP has been a major concern in IS management practice and research. Its focus is on how to anticipate strategic demand for IT systems and how to manage IS capabilities according to business needs. In the mid-1990s, this research resulted in a noticeable peak of publications, summarizing much of the research in procedural models and methods (Sidorova et al. 2008). These contributions, however, had a strong focus on data and application planning on one side and a corresponding technology plan on the other (Lederer and Gardiner 1992). Some of the procedural models resulting from this stream of research can still serve as orientation for strategic planning in IS today. In reviewing and synthesizing different models, Brown (2004) identifies the general process model of Lederer and Salmela (1996) as one of the strongest conceptualizations of SISP processes (Fig. 1). This model highlights that the actual planning process is generally anteceded by considering relevant environmental factors and resources available.

The process results in an information plan – that is, the IS strategy. In the context of strategy assessment, especially the step of aggregating, analyzing, and making sense of the input to the process is in our focus (highlighted in grey).

Much of the SISP literature has, however, focused on matching information technology to business needs rather than on the functional level of IS strategy. This observation is supported by Chen et al. (2010) who assert that relatively little attention seems to have been devoted to questions of the functional strategy of the IS department.

Thus, building on and extending SISP studies, a stream of research on IS's functional strategy emerged (Galliers 2004). In it, too, the procedural or methodological perspective is an important research perspective. Various approaches have been used in the past to derive which steps, processes, and frameworks are most suitable for the development of IS strategy. For example, a number of studies reflected on the content of IS strategy and derived a respective model on how to come up with these contents (e.g., Earl 1988; Galliers 1999; Lederer and Gardiner 1992; Ward and Pappard 2002). Others tried to understand the process of IS strategizing as a response to the need for alignment with the overall corporate strategy (Burn 1993; Rathnam et al. 2004) or based on existing strategy frameworks such as balanced scorecards (Martinsons et al. 1999) or the strategic grid framework (Premkumar and King 1992; Tukana and Weber 1996). Conceptually related to the activities suggested by Lederer and Salmela (1996), studies by Kovacevic and Majluf (1993) or Salmela and Spil (2002) have suggested different phase models that explain what needs to be done to develop a functional IS strategy. Even though these studies are very close to this paper's research objective, they seem to offer little insights into *why* their models support IS strategizing.

Recognizing this opportunity for further research, several studies complemented the functional IS strategy stream by investigating characteristics of successful approaches. Among these, Earl's (1993) model is commonly referred to as a more influential one (Chen et al. 2010; Doherty et al. 1999; Galliers 2004). Earl (1993) deductively identifies five different patterns of planning processes and concludes that environmental and organizational context factors strongly influence which planning approach is perceived as most effective by business and IS managers in the field. Consequently, an organizational approach (i.e., interactive partnership between business and IS managers) best supports successful IS strategizing when it is oriented towards continuous learning. Since Earl's (1993) study, additional work has contributed to the understanding of the characteristics of successful IS strategizing.

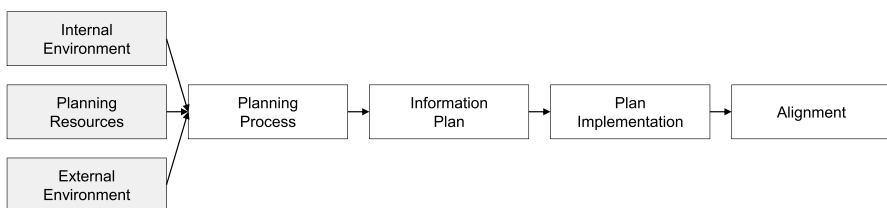


Fig. 1 Elements of strategic planning processes in IS (Lederer and Salmela 1996)

For example, Segars et al. (1998) and Sabherwal and King (1995) identify important characteristics of successful planning approaches. They, too, connect research on IS strategizing to IT-business alignment and derive the need for a concurrent development of IS and business strategy with a strong involvement of executives from both sides (Philip 2007); a position later reemphasized by Chen et al. (2010).

All of the studies we introduce above offer seminal contributions in terms of process models for strategizing in ISM. While such studies provide important complements on the myriad of studies focused on the *product* of strategy, all of them remain vague on the effects of their respective strategizing processes; that is, what effects does doing the steps suggested have and why would they be expected to positively affect strategizing in ISM?

2.4 IS Strategizing as a social task

As discussed above, ISM is a process in which decision makers obtain, interpret, explain, and act on information to render a decision, develop implementation action plans, and seek to implement the decision successfully (Dooley and Fryxell 1999; Leifer and Mills 1996; Mintzberg and Lampel 1999). Following this school of thought, we think of ISM as a complex decisional, technical, and social task in a corporate environment (Grover et al. 1993). This implies that it is important to study ISM from a social perspective.

Consequently, understanding these individual realities and how they are shared and synthesized in the context of strategy assessment is important for two reasons. First, some authors have concluded that there is no one best IS strategy, but that an organization needs to develop a strategy that fits its particular situation or context (Ein-Dor and Segev 1978). This does fit our focus on the process perspective of ISM: rather than prescribing with respect to the content of IS strategies, research in ISM should focus on enabling actors to develop idiosyncratic strategies that best fit their context. As context, contents, and perceptions are individual, such an approach will have to focus on allowing actors to integrate their various perceptions, in other words focus on the process that enables the actors participating in ISM to do so. Second, because this process should enable the building of a shared perception of an IS department's strategy assessment among the participating managers, a shared definition of the relevant domains or contents of ISM is necessary to enable the actors involved in ISM to relate their individual perceptions to one another and integrate them (Müller et al. 2009). This implies that the focus of IS strategizing studies should be more on what effects the respective processes have on participating actors, rather than just depicting process models alone. This strongly resonates with the complementarity between procedural and process theoretical thinking we are working with.

3 Research design

To build such insights on procedures and processes, the research design employed needs to be able to produce narratives from which actions and events along with their consequences can be deduced (Langley 1999; Pentland 1999). Correspondingly, we designed our work to study three strategy assessment projects in depth, placing particular emphasis on preserving the logical and chronological flow of events (Miles 1979). This enables us to place ourselves into the temporal and contextual frame of the managers studied, which is a necessary design element for studies aimed at investigating and understanding strategy formulation and implementation processes (van de Ven 1992).

3.1 Case selection

Through our research design, we wish to support the recognition of systematic similarities and differences across cases (Ramiller and Pentland 2009). Such, the cases provide a basis for more stable and generalizable theories as compared to a single instance only (Eisenhardt 1989a, 1991). Due to the confidentiality of strategic planning processes and the resulting difficulties in gaining research access to organizations, we work with a convenience sample. However, ex-post analysis shows that the three cases allow for literal replication and provide sufficient similarity to enable comparison while introducing meaningful variation to support theory development (Yin 2009). Table 2 introduces the case companies.

3.2 Data collection

To gather data for the analysis of the cases, one of us was embedded into the strategy development teams of IS departments as a participant-as-observer (Gold 1958). The projects we studied lasted between three and five months.

To allow for data triangulation, we employed multiple methods. Primarily, we used interviews and group workshops as the key sources of data. Whenever possible, we recorded and transcribed these to enable validation of later interpretations by key informants and other researchers. To extend these observations, we used documents (such as presentations, handbooks, mails, project plans, etc.) as additional data sources. We further complemented these data sources through participant observations, informal conversations, and engagement with subjects in the field. These were documented in field notes, and an extensive fieldwork journal was kept. All material was gathered and documented in a case-study database (Yin 2009), see Table 3 for an overview of materials.

Using these materials, we developed detailed narratives of how the positioning and strategy development projects unfolded for each case (Argyris et al. 1985; Eisenhardt 1989a; Yin 2009). We submitted these narratives to the key informants who participated in the projects to allow for review, elaboration, and approval.

Table 2 Profiles of the case study companies

Characteristics	Case 1	Case 2	Case 3
Name	Alpha	Beta	Gamma
(Dominant) Industry	Facility management	Automotive supplier	Auditing company
Headquarters	Germany	Germany	Germany
Turnover / IS Budget [EUR]	947 m / 44.2 m	6,319 m / 51.5 m	1,470 m / 76.5 m
IS Cost / Turnover [%]	4.7	0.8	5.2
Employees [FTEs]	6,851	23,288	8,870
IS employees [FTEs]	33 int., 40 ext	219 int., 0 ext	243 int., 24 ext
IS intensity	Medium	Medium	High
IS structure	Centralized	Centralized, some functions in decentralized business units	Centralized
Project team	Internal IS management team with select external methodological support	External business consultants as primary project contributors, internal team supplies information	Internal IS management team with select external methodological support
Initial situation	Company in pre-merger due diligence and IS had to demonstrate value contribution and strategic alignment	Company initiative to strengthen central IS resulted in a strategy development project for the central IS	Assessment of current strategy was needed to develop an action plan to revise the IS strategy
Project duration (strategy assessment)	5 months	3 months	5 months
Project participants (interviewees)	10 interviewees	9 interviewees	10 interviewees
Project workshops	2 workshops	4 workshops	6 workshops
Project outcome	Strategic positioning results in definition of projects to increase IS' value contribution	Strategic positioning canceled, IS strategy developed based on management mandate	Extensive revision of IS strategy

3.3 Data analysis

As a basis for data analysis, the case narratives represent a story containing actors, actions and events, goals accomplished by certain means, a specific setting, and a particular outcome – key ingredients generally considered important input for building accounts of processes (Ramiller and Pentland 2009). Understanding the contributory structure among these elements enables the construction of theoretical events which, following process logic (Mohr 1982; Newman and Robey 1992), lead to the emergence of the overall effects of strategy assessment and the factors facilitating a project outcome perceived as successful by the participating managers.

In this, we used our literature-based pre-understanding as a theoretical scaffolding to structure and focus data analysis within and across cases (e.g., Lapointe and Rivard 2005; Sarker et al. 2012). More specifically, the research on strategic planning

in the IS context helped us to search for activities and events already described in the literature (esp. Kovacevic and Majluf 1993; Lederer and Salmela 1996; Salmela and Spil 2002). As scaffolds, however, these concepts were not used as top-down coding scheme but rather sensitized our data analysis toward pertinent elements such as actors, steps, outcomes, and others like this (Walsham 1995).

We analyzed the case study data primarily based on the narratives but reverted back to the original data sources in instances in which the need for additional depth, context, or clarification emerged. Our analysis focused on a within-case analysis of each case individually before comparing the abstracted findings across cases (Eisenhardt 1989a; Yin 2011). For example, we first extracted the activities and events related to strategy assessment from each case individually before comparing the case-specific findings in search for a common pattern across cases. To do so, we used visual mapping and temporal bracketing to analytically abstract from the data (Langley 1999; Pentland 1999). We conducted our first coding manually, a second round of analysis ensured the consistency of the coding. Atlas.ti supported the second round of qualitative data analysis, and we used Microsoft Visio for the visual arrangement of activities and events into phases.

As a result, we identified 97 activities and events and analyzed these in detail. Aggregating these procedural elements in the cross-case analysis allowed us to conceptualize 28 generic procedural elements that represent a stable pattern in the strategy assessment approaches across the three cases. Using fine-grained temporal bracketing (Barley 1990), we grouped 22 of these elements into three phases and three elements became transitional group states at the end of each phase. Our continued analysis revealed that the remaining three elements are consequential factors or outcomes after the final group state. They highlight how a strategy assessment connects to the remainder of the IS strategy cycle and contributes to the overall success of the strategizing process.

To ensure reliability of our analyses, we checked the interpretations of the narratives in separate workshops with project participants as the principal informants (context-specific) and with other researchers (context-free) in friendly review sessions (van de Ven and Poole 1990).

Continuing our engagement with the data toward theorizing, we intensified our cross-case analysis by increasingly juxtaposing the successful cases and the unsuccessful case, leading to the emergence of the overall process theory (van de Ven 1992).

As a result, our research provides equal insight into the procedural perspective (i.e., an approach for strategy assessment in ISM) as well as into the underlying

Table 3 Overview of data source

Data source	Alpha	Beta	Gamma	Sum
Interviews (pp. of transcripts)	78	67	62	207
Documents	22	25	79	126
Relevant e-mail messages	184	218	289	691
Field notes, minutes, etc.(pp.)	44	49	54	147

process theoretical dynamics (i.e., emergence of underlying social group states) in the strategy assessment process.

4 Results

This section introduces the results of our case analyses. As a first step, we proceed by extracting common patterns of activities and events across the cases that allow us to aggregate a procedural model of how IS executives actually do strategy assessment. In a second step, expand this analysis by studying the effects of the activities and events which leads us to propose a process theoretical explanation for why one of our three cases derailed and failed to produce and meaningful outputs from its strategy assessment project. We complement this analysis by comparing and contrasting our findings vis-à-vis extant literature from adjacent fields (esp. organizational behavior, group psychology) to increase the validity of our analysis and to illustrate that our findings can be related to plausible conceptual arguments (Eisenhardt 1989a).

4.1 The strategy assessment process

A cross-case analysis of our three cases reveals a sequence of three phases (Fig. 2). While these phases and their principal sequential structure are relatively consistent with previous procedural models of IS strategizing (e.g., Earl 1993; Kovacevic and Majluf 1993; Salmela and Spil 2002), our research extends these prior models by uncovering social group states as critical transition points between the phases.

The collection phase, for example, is not an end in itself but rather a means to build up transparency on the strategically relevant aspects and domains of IS strategy in a given context. This transparency, in turn, is an instrumental precondition for the subsequent discourse phase in which the information generated in the collection phase is used to make sense of the environment, to assess the strategic position of the IS department, and to formulate a corresponding IS strategy.

4.1.1 Initiation and agreement

As the first phase of strategy assessment, a pattern consisting of ten distinct elements emerged from the analysis across the three cases. Figure 3 introduces the elements and structure of the initiation phase.

Figure 3 shows which elements are part of initiating a strategy assessment project and how the teams in the cases structured these. While these elements show a strong interrelation in that they all contribute to the emergence of the outcome of this phase (i.e., the group state of agreement on the assessment project's foundations), there are also links (grey boxes) to elements of other phases. Overall, the initiation phase is rather stable across the three cases in that most of the elements described here occurred in all three cases. Only *defining roles* and *assigning responsibilities*

respectively did not occur in Beta. Table 4 shows which elements were present in which of the cases.

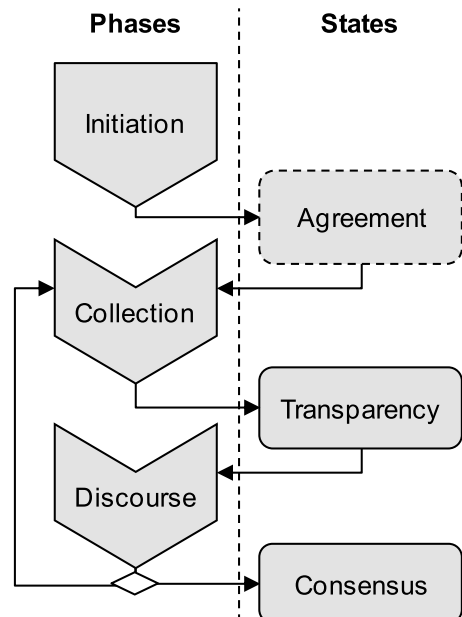
While not all of the elements uncovered from the cases can be introduced in full detail, exemplary discussions of a few elements illustrate the overall logic of the results. The analysis of the cases revealed that all teams explicitly chose to *select a frame of reference*. The motivation to do so is summarized by Alpha's internal project manager:

“Using a common frame of reference for all parts of the project was imperative to ensure that we could not only distribute the data collection, but also relate the information from the various domains back to each other.”

This comment was made while preparing the final workshop in which Alpha's project team presented their findings to the two senior executives responsible for IS – the CIO, who took care of strategy and operations, and the head of the company's project office, who was responsible for planning and managing all project related work. The workshop itself also supported the relevance of a sound frame of reference. As it was the first instance in which the head of the project office was confronted with the interpretation of the data gathered so far, she felt that the project perspective was not analyzed adequately. Summarizing this, one of the external partners who supported the project observed:

“Had we accounted for the project perspective early on, I believe the interpretation of the strategy assessment of Alpha's IT would have been different. Their lack in project management competencies looked like a real threat to

Fig. 2 Phases and states of a strategy assessment



their future development. Now [after the workshop] we know that [their project management skills and experience] rather is a strength, and the real problem is making this strength transparent to everyone.”

Based on similar motivations, also Beta and Gamma went through a selection process for a frame of reference. Across the cases, this was consistently done by the group of IS managers participating in the assessment project as a whole – even though they relied on the procedural guidance of the external partners (consultants or benchmarking clearing house) involved in the projects. This group generally drew heavily on their own experience with respect to the tasks, processes, and interfaces among themselves to structure their management approach to IS. This also reflected in existing departmental structures that were used to identify where to get strategically relevant data, how to aggregate data, and who to involve. Another important input for selecting a frame of reference was reflecting on the strategic goals of the IS department.

These inputs were generally derived based on a group discussion and an analysis of internal documents (e.g., existing IS and corporate strategies or charters of

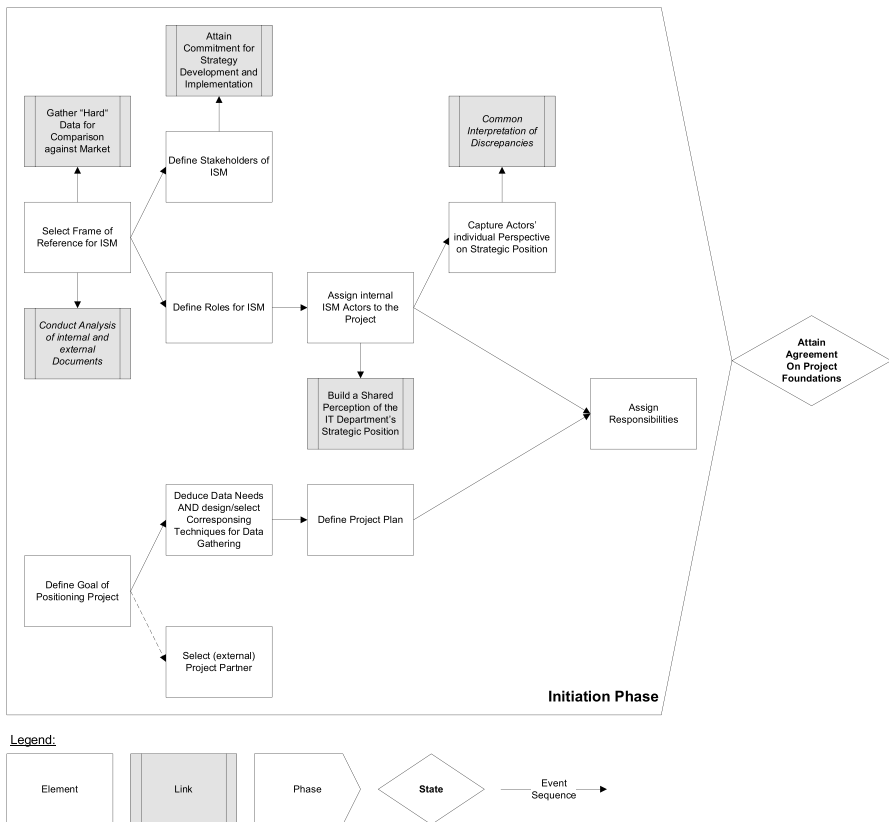


Fig. 3 The elements and structure of the initiation phase

Table 4 Linking initiation elements to cases

Element	Cases
Select Frame of Reference	α, β, γ
Define Stakeholders of ISM	α, β, γ
Define Roles for ISM	α, γ
Assign internal ISM Actors to Project	α, β, γ
Capture Actors' individual Perspective on Strategic Position	Implicit (γ)
Define Goal of Positioning Project	α, β, γ
Deduce Data Needs AND design/select Tools for Data Gathering	α, β, γ
Define Project Plan	α, β, γ
Assign Responsibilities	α, γ
Select (external) Project Partner	α, β, γ

important projects). Afterwards the actors involved engaged in an intense comparison of established frameworks with their own situation. To identify existing frameworks, they generally employed an analysis of frameworks suggested in the literature. While the practitioners mainly focused on frameworks published in books or trade journals, the external partners occasionally suggested frameworks they either developed based on their experience or they had adopted from scientific literature. The matching of the two was conducted in a joint workshop. As a result, the teams produced a graphical depiction of the core domains of the IS management, how these domains relate to each other internally and to IS's key stakeholders.

An issue closely related to the selection of the frame of reference, and thus a subsequent element in Fig. 3, is the derivation of a role model for IS management based on the frame of reference. This allowed for a fair representation of all the domains IS management needs to consider when comprehensively capturing strategically relevant information.

As indicated in the right column of Table 3, the need to *capture actors' individual perspective on strategic position* was only discovered once the Gamma case had been completed. In particular, an ex-post project evaluation done by the project team revealed that some of the actors participating in the positioning project felt that their involvement in the project changed some of their perspectives and opinions before gathering data and deriving interpretations. This was interpreted as a suppression of individual perspectives that reduced the amount of discourse in the team. As will be discussed in the context of the discourse phase, this could unduly stimulate consensus. To counteract this effect, a documentation of initial perceptions (e.g., strength, threats, current issues, frame of reference, etc.) helps to reflect upon these issues later.

Overall, the elements of the initiation phase have led to an agreement on the project foundations among the actors involved. Beyond the frame of reference for their IS management as discussed above, this also included a role model and a clear project plan with responsibilities and milestones. As Beta struggled with establishing such agreement, some of the observations their project team members made can be

used to illustrate why agreement is an important precondition for the subsequent collection phase. For example, one of Beta's managers for application development and operation observed:

“I am not sure why we are doing this, it does not seem to play any significant role in the overall project. [...] I just don't seem to have time for such overhead.”

Accordingly, he found it difficult to allocate sufficient resources to participate in the project actively and expressed difficulties in identifying relevant information and perspectives to feed into the strategy assessment project. The external consultants had to compensate for these difficulties by introducing a frame of reference, a project plan, and a role model.

4.1.2 Collection and transparency

Drawing on the agreement obtained in the previous phase, all teams moved to the collection phase. In it, the teams distributed the collection of data to domain experts rather than centralizing the collection effort. Consequently, these experts had to be briefed on how to use the data gathering tools the teams defined in the initiation phase before collecting data. At the core, mostly quantitative data was collected to be compared against peers or goals defined by corporate strategy. This was done by reverting to benchmarking as a tool. To be able to interpret the data, all teams paid great attention to contextualizing this data. Both contextual (e.g., internal role of the IS department or general organizational structures) and competitive (e.g., market prices for goods and services) information was gathered. This very diverse information representing the various domains of ISM then had to be integrated. Overall, Fig. 4 depicts the events of the collection phase and how they are interrelated.

While the initial phase showed up rather consistently across the three cases, differences started to emerge in the elements of the collection phase. For example, no explicit briefing on tool use and data need was conducted in the Alpha case. Quite contrarily, the two project managers held most of the knowledge on tools and data requirements in the Alpha case. While the internal and external project manager frequently discussed the match between the two, this knowledge was only communicated into the team on an ad hoc basis. In fact, an offer by the external project manager to familiarize the internal project team with the tools was refused. Consequently, Alpha struggled with the linear progression patterns of the process as depicted in Fig. 4. To compensate, they conducted a series of workshops that, by and large, substituted for the initial briefing. While the initial analysis of the Alpha case alone thus represents a cyclical process pattern, the integration with Beta and Gamma shows that an initial briefing seems to eliminate the need to conduct data collection iteratively in the collection phase.

A similar observation is true for *refine data needs*. This is a loopback from the subsequent discourse phase. As Beta did not reach the final group state, as will be discussed later, this element was only present in Alpha and Gamma. In these cases, the ability to gather additional data was described as an important characteristic of

their strategy assessment processes. An example for this can be found in the Gamma case. The head of IS controlling maintained:

“The iteration between data gathering and interpreting the data was very helpful in building a sound opinion, both individually and in the team. Focusing on any one of them wouldn’t make sense. [...] I believe that’s what differentiates this project from our prior approaches.”

Overall, however, most of the six elements of the collection phase occurred in a relative stable fashion across the three cases (Table 5).

The goal of the collection phase is to establish transparency on all the relevant perspectives needed for strategically assessing the IS department. Beyond creating a holistic documentation of the main aspects constituting the strategic position of the IS department, it is important that this information is communicated within the group. This is necessary to ensure that all relevant information can be interpreted from all relevant points of view.

4.1.3 Discourse and consensus

In the assessment’s final phase – discourse – the project teams leveraged the transparency created in the collection phase to contrast what they thought would be strategically important and what their new or revised IS strategy would need to account

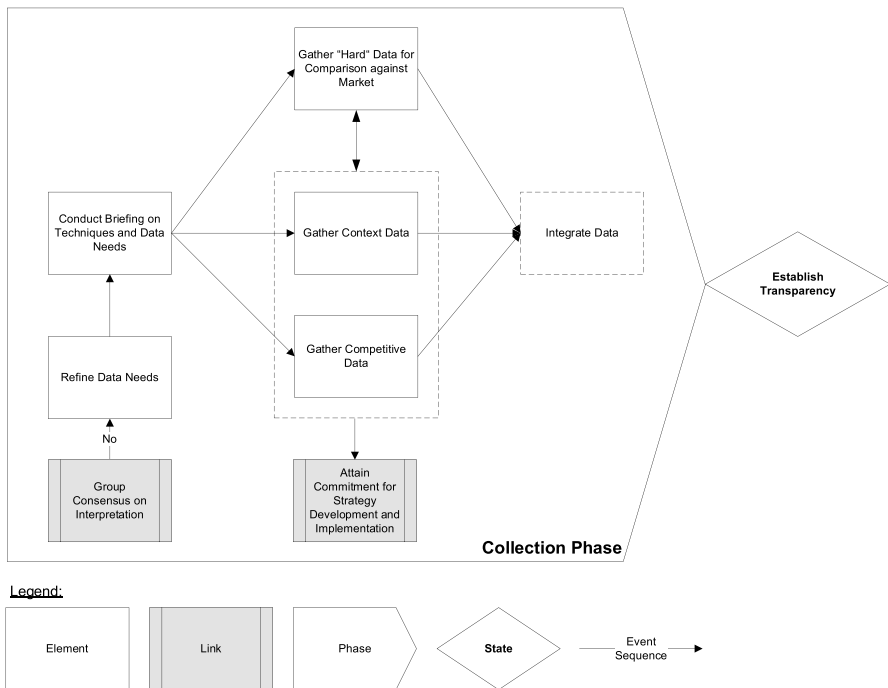


Fig. 4 The elements and structure of the collection phase

for. This process is generally based on a thorough data analysis. In all the cases, this led to the emergence of conflicting interpretations. The project teams then engaged in an active discourse on which of the conflicting points of view was representing the data they had collected most accurately. In this process, all the team members drew heavily on the transparency established at the end of the collection phase. Two possible outcomes of this discourse process emerged in the teams. First, as initially evidenced by Alpha and Gamma, the teams can end up with discrepancies that they cannot resolve by themselves. In these cases, the teams used what they had learned about their strategic position so far to identify information that, if added, would help them resolve the discrepancies and develop a better understanding of their strategic position. In the Gamma case, for example, discrepancies emerged between the department's Chief Information Security Officer and the head of application development.

Unable to resolve these conflicting interpretations at that point, the team decided to add an additional interview with the company's Chief Operating Officer. Adding this additional data point helped to resolve the conflict and make a decision in the tradeoff between security and operational efficiency. Overall, the elements of the collection phase are depicted in Fig. 5.

Again, most of the elements showed a rather stable pattern in the cross-case analysis and all the three teams showed similar approaches to engaging in discourse as part of their strategy assessment. Table 6 provides a respective overview.

One of the key elements in this phase is to *create a common interpretation of discrepancies*. Looking at the activities in the field, this element generally surfaced multiple times during the team workshops on consolidating and interpreting the results of the collection phase. In it, two or more actors used their information to draw conclusions on a matter while others in the team felt that their observations led to different interpretations. While initiated by the parties that disagreed, the project teams generally got involved in these discussions rather quickly. As a consequence, contested issues were looked at from a larger variety of perspectives, which often forced the parties involved to explicate their assumptions and interpretations of the data. Either this process led to the emergence of consensus as one of the interpretations gained support, or the project teams decided they could not resolve the issue with the data they had gathered so far. The group workshops in which this took place were generally moderated by the external partners and involved the whole team of IS managers participating in the project.

Table 5 Linking collection elements to cases

Element	Cases
Conduct Briefing on Tool Use and Data Needs	β, γ
Gather "Hard" Data for Comparison against Market	α, β, γ
Gather Context Data	α, β, γ
Gather Competitive Data	α, β, γ
Integrate Data	α, β, γ
Refine Data Needs	α, γ

The discourse phase results in a fully shared and consensual perception of the relevant factors influencing IS strategizing. Examples of such factors drawn from the cases are, among others, the governance structures employed in IS and the interfaces to the company's business units and corporate management, the role IS plays within the corporation, the department's and the organization's general position in the industry, or the IS department's organizational structure.

The consensus obtained at the end of the discourse phase also serves as a basis for decision making in the department's larger strategic planning process. The position developed in strategy assessment will allow IS managers to develop a set of actions that are intended to improve strategy attainment, or can be used to revise or adapt IS strategy.

Overall, all of the companies studied here exhibited similar approaches to strategy assessment. While in the case of Alpha and Gamma the approach was based on joint efforts of both the internal and external parts of the project teams, Beta mainly followed a principal structure suggested by the external consultants. Figures 3, 4, and 5 reflect the high degree of similarity among the activities and events at Alpha, Beta, and Gamma.

Despite the high degree of similarity, however, the effects of the three projects are quite different. While Alpha and Gamma showed high levels of involvement throughout the project, a strong appreciation towards the results, and a very productive use of the information produced by the assessment project in developing their new strategies and deriving a respective project portfolio, Beta struggled with the assessment effort throughout the project. Eventually, the team failed to generate the assessment's overall output and did not reach consensus. In line with our initial argument that the extant literature on strategizing in ISM fails to illustrate *why* the processes it discusses are supposed to have positive effects on ISM overall, a look at the level of procedural elements (i.e., events, phases, and group states) alone does not account for the emergence of different outcomes.

4.2 The effects of strategy assessment

As discussed earlier, the procedural aspects of strategic planning in IS have been addressed in the extant literature but little attention has been devoted to the underlying effects and consequences of these approaches. While an update to existing but often dated procedural models is a contribution in itself, the results introduced and discussed by us so far also show an abstracted sequence of elements emerging from the cross-case analysis only. While the group states help indicate that there are intermediate outcomes that seem to be necessary transition points, these, too, are not effects of the strategy assessment.

To improve the theoretical bearing of our analysis, we further abstracted from the procedure uncovered in the three cases. Two perspectives were used to do so: First, the overall assessment procedure across the cases was compared back to the individual cases. Doing so helped to see what the elements included in the final version of the procedure did to help the teams conduct a successful strategy assessment in the individual projects. At the same time, the overall procedure was contrasted with

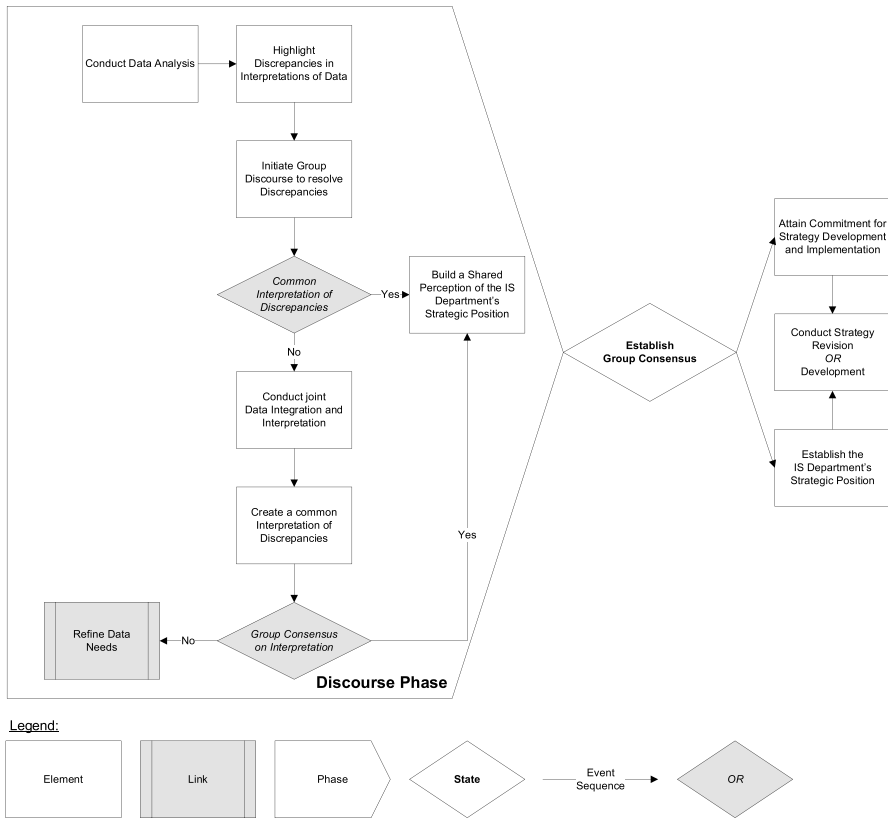


Fig. 5 The elements and structure of the discourse phase

Table 6 Linking disclosure elements to cases

Element	Cases
Conduct Data Analysis	α, β, γ
Highlight Discrepancies in Interpretations of Data	α, β, γ
Initiate Group Discourse to resolve Discrepancies	α, β, γ
Conduct joint Data Integration and Interpretation	α, β, γ
Create a common Interpretation of Discrepancies	α, β, γ
Build a shared Perception of the IS Department's Strategic Position	α, γ

instances in which certain elements were not present in individual cases. Counterfactual reasoning (Durand and Vaara 2009) allowed us to carefully assess the effects of such an omission. Additionally, enfolding literature on organizational behavior and group decision making helped us to identify consequential factors that the elements we abstracted from the cases are conceptually linked to. We then assessed

which of these consequents actually play a role in strategy assessment. As a result, we believe that three consequential factors build up while the strategy assessment unfolds: (1) procedural justice, (2) commitment, and (3) comprehensiveness.

To begin our analysis, we contrasted how the successful case companies engaged in the strategy assessment with how the unsuccessful one did. In the Alpha and Gamma case, all team members equally contributed to the outcome of the strategy assessment project and developed a sense of shared ownership and responsibility. In contrast, the external consultants did most of the work in the Beta case, which led the internal ISM actors to feel somewhat disconnected from the process. This contrast led us to explore the organizational behavior and group decision making literature to try and understand which factors could help us conceptualize this tension.

This enfolding of extant literature led us to recognize *procedural justice* as a first factor because it positively impacts team members' commitment to a team effort and acceptance of results (Korsgaard et al. 1995). Empowering working teams increases this perceptive property, that is, the group mainly relies on self-organization or the ability to contribute and participate to the organization of a team effort (Basu et al. 2002; Kirkman and Rosen 1999). This makes teams more productive and proactive (Kirkman and Rosen 1999).

Procedural justice leads to a situation that increases acceptance of results. People will have a higher propensity towards accepting results if they were equally involved in creating them (Eisenhardt 1989b; Korsgaard et al. 1995). Moreover, constructive discourse on management decisions can garner support for their implementation (e.g., Rowland and Parry 2009; Skordoulis and Dawson 2007). Beyond this, procedural justice builds commitment to a team effort (Korsgaard et al. 1995). While we can see these positive effects materialize in Alpha and Gamma, the more consumption-oriented, passive stance Beta's managers took kept them from collectively developing a feeling of procedural justice – even though they still engaged in a relatively similar pattern of procedural elements across the strategy assessment phases.

Continuing our analysis, procedural justice's positive impact on commitment piqued our conceptual interest. Again, Beta's ISM team exhibited a much more passive approach and the managers involved as well as the department's CIO were less likely to devote resources to the project. Contrary to that, Alpha's and especially Gamma's IS executives placed a strong emphasis on the project's importance and were willing to commit resources. These differences led us to explore the role of *commitment* as a second factor.

To this end, the literature confirms our suspicion that *commitment* is closely related to procedural justice, especially with respect to the work effort a team invests (Kirkman and Rosen 1999; Korsgaard et al. 1995). Moreover, Rowland and Parry (2009) argue that the ability to engage in constructive dissent and the process of resolving it are positively impacting commitment – aspects that resonate very well with the role of the discourse phase and consensus state in our procedural model. Beyond this, and based on the fairness-related acceptance of results, commitment increases the implementation success of the results of a team's efforts (Mason and Mitroff 1981; Parayitam and Dooley 2009). This is because commitment increases understanding of the rationale for decisions and reduces the likelihood that a

particular decision will become the target of a counter-effort (Galliers 1991; Parayitam and Dooley 2009).

In the literature, the consequences of commitment are shown to be twofold. First, commitment leads to a higher acceptance of results and therefore directly increases the likelihood that a strategy assessment's results will facilitate the IS strategizing processes. In a study of IS strategy implementation projects, Wilson (1989) identified middle-management attitude as a frequent barrier to strategy implementation and stakeholder support as an important success factor. Both these issues can be addressed when these groups are involved in and commit to a strategy assessment. Second, commitment leads to more effort spent and to a higher degree of comprehensiveness of the strategic position. This effect is clearly present in the Alpha and Gamma cases. Both management teams strongly committed to the project, far beyond the senior management mandate. In contrast, Beta's project team members only contributed what the consultants identified as absolutely necessary and were hesitant to commit any resources outside of the immediate project settings.

Again, we felt that one of the implicit aspects discussed in the commitment literature resonated with our case data more than a discussion of commitment alone would allow – *comprehensiveness*. This factor can be defined as a measure of rationality and refers to the extent to which organizations attempt to be exhaustive and inclusive in making decisions and generating and evaluating alternatives (Fredrickson and Mitchell 1984). Comprehensiveness of the results in strategy assessment is a measure for the quality of outputs. Research has shown that a more comprehensive and sophisticated planning process produces more useful outputs and increases the likelihood of success of the implementation (Premkumar and King 1991; Tang and Tang 1996). Salmela et al. (2000) suggest that comprehensive planning is more successful, even in turbulent environments. IS management actors develop greater insights into their environment and become more realistic and effective in their assessments of that environment's potential impact on their organization (Sniezek 1992). Because consensus resulting from the assessment process can be interpreted as a shared understanding of ends and means (Wooldridge and Floyd 1989), we argue that comprehensiveness of the assessment effort increases the acceptance of the strategy assessment's results among the participating actors. This is based on creating a shared understanding and ensuring that all participating actors know what to do next (i.e., in strategy assessment, how to do it, and why to do it. This is supported by Tang and Tang (1996) who find that more comprehensive and more sophisticated planning increase the likelihood of strategy implementation.

Evaluating the case material, all companies placed great emphasis on the comprehensiveness of their results. However, with comprehensiveness playing its role in a rather advanced stage of strategic positioning, the lack of procedural justice and commitment in the Beta case can explain performance and success differences when compared to the other two projects.

Summarizing the contributions of the various phases to these consequential factors, Table 7 offers an overview of the role of the various phases and how they contribute to the overall outcomes of the strategy assessment process through their group states.

An analysis of how procedural justice, commitment, and comprehensiveness impact each other leads to a better understanding of *why* the elements, phases, and groups states identified above make strategy assessment in IS strategizing more successful as perceived by the participating teams and improve the teams' acceptance of the results. Commitment has been shown to be one of the antecedents of such acceptance. Through increasing the comprehensiveness of results, commitment has an additional effect on acceptance among the participating actors; and consequently, also is likely to have positive effects on the implementation success of the subsequent strategy to be revised or developed. Procedural justice, beyond being a source of commitment, further increases acceptance. As discussed above, this analysis of the emergent consequential factors of strategic positioning is equally based on the observations we made in the field as well as on conceptual arguments drawn from extant literature. Beyond increasing the validity of our analysis (Eisenhardt 1989a), this approach also allowed for the analysis of the contributory structure of these three consequential factors and for establishing their impact on the acceptance of the strategy assessment's results. Figure 6 summarizes the results from enfolded arguments derived from extant literature.

The increase in acceptance of strategy assessment is also the link to the overall IS strategizing process. Looking at the overall IS strategy cycle, strategy formulation or revision is the next step. As argued above, strategy based on comprehensive results and with commitment and perceived procedural justice among the relevant actors will have a higher propensity of being implemented successfully.

Looking at the cases, we observe a series of events that occurred as an outcome of the projects. Alpha and Gamma had in fact created strong commitment to the implementation of the new or revised strategy. As they had established a comprehensive understanding of their strategic position based on their strategy assessments, both Alpha and Gamma conducted respective strategy definition or revision projects based on the project outcomes. In the case of Alpha, this was done by defining a comprehensive set of projects addressing various improvements through which the managers intended to improve Alpha's strategic position. For Gamma's IS department, the revised IS strategy was received very well by the company's board of directors. Based on the analyses conducted in the project, Gamma began to restructure its IS department to place more emphasis on its role as a business partner. In contrast, Beta did not make it to the third group state of consensus. Consequently, the emergence of the consequential factors and their overall impact on strategy implementation is much weaker than in the other two cases.

5 Contribution and Implications

Our research provides a set of contributions. First, by providing detailed procedural models of the different phases of strategy assessment we provide a revelatory look into the black box of managerial actions. Detailing out what managers actually do when they engage in strategy assessment to support IS strategizing improves our understanding of how the procedural *what* and *how* lead to the emerging group states and consequential factors. This rich material offers the ability to immerse

Table 7 Group states and their contribution to consequential factors

	Agreement	Transparency	Consensus
Procedural Justice	<i>Strong effect:</i> allowing actors to confirm project plan	<i>Supporting effect:</i> actors gain insight into data collection; transparency on tools	<i>Strong effect:</i> open discourse process allows for equal participation; goal of consensus empowers group
Commitment	<i>Supporting effect:</i> internal actors are involved	<i>Supporting effect:</i> actors are actively collecting data	<i>Strong effect:</i> actors participate in decision making; shared view and interpretation
Comprehensiveness	<i>Strong effect:</i> actors approve the identification of roles and ISM stakeholders; capturing their individual views	<i>Strong effect:</i> aspects for all domains collected with multiple instruments	<i>Strong effect:</i> consensus on ends and means; shared interpretation of the data; capture additional, refined data if needed

deeply in both action and context and sheds light on issues such as social dynamics which have, to date, not been investigated in research on strategizing processes in IS.

Second, this study explains the underlying effects that the ability of strategy assessment to positively contribute to overall strategic planning rests upon. In doing so, it extends current research on procedures for IS strategizing by explicitly illustrating the *how* and *why* of the emergence of strategy assessment's positive impact in two ways: (a) how the elements of a phase contribute to achieving the phases' respective target group states, and (b) why the overall process contributes to the success of strategy assessment and acceptance of its results.

While previous work already provided variance-theoretic insights into strategic information systems planning (e.g., Segars et al. 1998), by focusing on the specific relation of its activities (our procedural model) as well as on an added understanding of why these activities matter and how, our work can be considered a process-theoretical complement to previous research in this domain.

Our results also have managerial implications. First, the procedural models of the different phases of strategy assessment can serve as blueprints for project teams that define their activities when preparing for strategic planning. Beyond helping executives of organizational IS departments to understand how and why a strategy assessment contributes to the success of their strategies, the detailed documentation of the process provides actionable advice on one possible strategy to attain these positive effects. This not only helps them to better generate, process, and assess strategically relevant information, but also supports the ongoing emancipation of organizational IS as an important partner of a company's business units and as a driver of the digital transformation.

Second, in adding a perspective on groups and group states, our work emphasizes the importance of middle management teams and their involvement in IS strategizing. We suggest that IS strategizing approaches that involve various domain experts are more likely to build comprehensive results that can serve as rich input to IS strategizing while also improving middle managers' commitment to the execution

of the resultant strategy – the contrast in our observations between Beta on one side and Alpha and Gamma on the other being a strong indicator for this.

6 Conclusion

In summary, we present a procedural model of strategy assessment along with process theoretical insights into how and why it results in successful contributions to overall strategic planning in ISM. Using established models of strategic planning in IS as a theoretical scaffolding, we uncover and analyze the basic managerial activities employed by three IS management teams to strategically assess their department. We use an in-depth analysis of these three cases to identify the patterns of elements that occurred across multiple cases, study their contributory structure, and understand their consequential factors. In doing so, we show that the underlying social dynamics are an important conceptual aspect across all the cases. Aggregating these findings, we use three phases and respective group states to describe the strategy assessment process as observed it in the field.

To adequately interpret our research's implications, a set of limitations needs to be considered. The most prominent ones probably are the potential impact of so far unobserved contextual variables (e.g., national cultural background of project members, IS-intensity of the industry, or the organizational role of IS) on the emergence of the overall outcome. With discourse and consensus at the heart of the processes observed so far, it seems likely that projects in other national cultures would exhibit a different pattern of events and even outcomes. Beyond the national level, also corporate cultures in which non-consensus-based patterns of group decision-making are employed might influence our study's findings in a similar way. All of these issues limit the external validity of our observations and thus impact our results' generalizability.

This leads us to acknowledge a second limitation, one generally observed in all exploratory inductive case work. To this end, we'd like to remind the reader that our results are generalizable only analytically (Yin 2002). As such, both our procedural model as well as our process theoretic insights are provisional and need to be

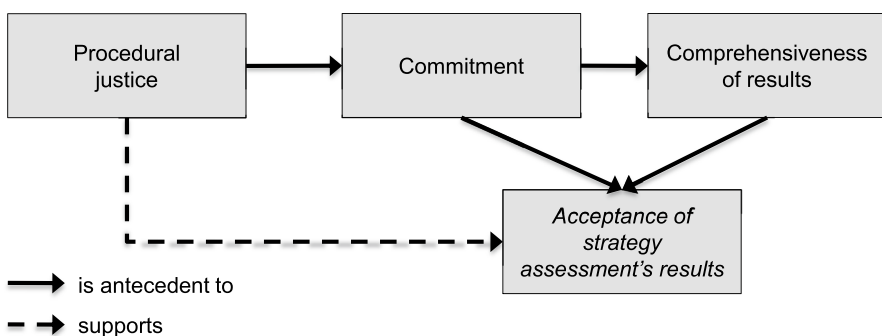


Fig. 6 Structure of the overall outcomes of the strategy assessment process

scrutinized and expanded through additional study. Nonetheless, our results provide faithful and comprehensive accounts of the three cases studied and offer a set of emergent theoretical insights into the what, how, and why of strategy assessment in ISM's overall strategizing efforts – within the bounds of case-based research (Lee and Baskerville 2003).

Another limitation can arise from the process conceptualization chosen here. Van de Ven (1992) identifies a set of progression patterns that describe the temporal sequence of events. Building on his classification, our research suggests that the process of strategically assessing an IS department principally follows a unitary progression pattern. However, this pattern might well be only one possible way to achieve a strategic position. This means that the strategy assessment processes might follow a multiple progression pattern rather than a unitary pattern and that other or interdependent approaches (also) lead to a successful positioning. Part of the resulting complexity has been accounted for by suggesting a link from the discourse phase back to the collection phase in case no consensus can be established (cyclical pattern). Similarly, recent literature suggests that process theory in itself must not be seen as a monolithic concept that emerges in its full-fledged and finished form but should be seen as a cumulative accomplishment that puts together relevant categories of process theoretical insight (Niederman et al. 2018). In this spirit, we acknowledge that future studies can further our work's generality by adding insights on action and sequence variability as well as overall transferability.

While these limitations influence the study's implications, they also offer an opportunity for future research. A first opportunity is the closer investigation of how senior executives influence the positioning process, particularly in the discourse phase. Some project participants described their management as to “[...] *relativize and influence the results too strongly.*” One of the consultants from the Beta case suggested that “*credible management commitment would be needed to actually establish the atmosphere needed for discussion.*” Overall, these results indicate a moderating effect of executives' behavior. Earlier research on IS planning already suggested that senior management plays an important role (Basu et al. 2002; Lederer and Sethi 1988). A specific investigation of this influence seems important and might further increase the perceived procedural justice. A further expansion of our work could investigate not only how the interpersonal effects shape the participating actors' behaviors, but also how variations of the tools involved impact changes in the procedures and processes (Mueller et al. 2016).

Overall, our insights into the procedures and effects of strategy assessment offer valuable advice to practitioners concerned with IS strategizing in the field. To continue informing practice, our results are a first contribution to revive discussions in the field of ISM and might help to end the paucity on researching strategizing processes in ISM (Galliers 2004) and their implications on strategic management and organizational behavior on a corporate level.

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