

Understanding dyadic promoter-stakeholder relations in complex projects

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Abstract:

In this study, we propose a Bilateral Double Motive framework of stakeholder cooperation in complex projects. The framework analyses and explains dyadic promoter-stakeholder relationships at a micro level by acknowledging both transactional and relational motives. We demonstrate the framework's usefulness by illustrating its explanatory power in two instances of cooperation and two of non-cooperation within two health information technology projects. The study contributes to project management theory through its combined focus on transactional and relational motives. Further, the study contributes to practice by providing a tool for planning and evaluating cooperation in health Information Technology projects and similar complex multi-stakeholder environments.

Keywords:

issue impact; promoter-stakeholder cooperation; project stakeholder management; reputation; salience.

DOI: 10.12821/ijispm040401

Manuscript received: 8 March 2016 Manuscript accepted: 19 April 2016

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1. Introduction

In this paper, we present a generic framework on promoter-stakeholder cooperation at a micro level, in the context of health information system projects (HISP). With this framework we aim to contribute to both practice and theory of project management.

The practical problem that we address is as follows. Promoters of complex projects, such as project managers, general managers, and implementers, face the challenge of managing relations with the project's stakeholders during the various phases of the project [1, 2]. There has to be decided with which stakeholders it is most important to cooperate to ensure the success of the project. It raises a balancing act of involving the right stakeholders at the right time [3]. On the one hand, involving too few stakeholders can lead to a lack of support and to a lack of the necessary knowledge since adequate support and sufficient expertise is a prerequisite for effective project outcomes, e.g. in terms of system design, implementation, and use. Conversely, involving too many stakeholders can lead to unworkable situations and dysfunctional compromises that may harm the project and ultimately lead to failure. The framework that we propose provides a systematic means to consider and evaluate cooperation in HISP projects. Promoters can use this framework to develop a well-grounded action plan for stakeholder management. Stakeholders can use this perspective to more comprehensively assess promoter initiatives and their possible contributions [4]. This framework can be used before the start of a project by those responsible to help assess its potential success and determine the critical factors in its implementation and improvement, and also during the project to analyze changing circumstances. Although we present a generic framework that can be applied in different settings, we demonstrate its explanatory power in four vignettes derived from the context of health information systems, being a fluid complex multi-stakeholder environment [5].

The contribution of this study to project management theory is an increased understanding of stakeholder involvement in complex projects by proposing and applying a theoretically grounded approach to promoter—stakeholder cooperation at a micro level. In doing so, we answer the question which factors determine dyadic promoter—stakeholder cooperation in complex projects. The study builds on existing stakeholder models and adds to these by proposing a combined focus on both transactional and relational motives for cooperation. The approach also highlights the bi-directionality since both promoter and stakeholder perspectives are included when considering their mutual engagements. This study draws on Mitchell et al. [6] by adopting a management perspective on the identification and analysis of stakeholders.

We have structured our argument in the following way. First, in the theoretical background section we embed stakeholder theory within project management literature to clarify the underlying theoretical basis of the framework. Here, we also discuss the relevance of the framework in health Information Systems (IS) contexts. After presenting the framework, we clarify in the method section that we use four vignettes to explain two instances of cooperation and two of non-cooperation. In the results section we show how different parts of the framework contribute to our understanding of these different levels of cooperation. Finally, we discuss in detail how the framework contributes to the literature and to practice.

2. Theoretical background

In identifying the main actors involved in organizational change, two categories are distinguished over the years, namely promoters, those who provide leadership in the project (also labeled as project leader, implementer, or champion) and other stakeholders, those who need to adapt to the change (also labeled as user or project member). Promoters are responsible for creating a vision, specifying a desired outcome, and then making the change happen [7-9], and the other stakeholders are responsible for implementing, participating, adopting, and adapting to the change [10]. Obviously, implementation requires extensive interactions between these parties engaged in the change.

Most project management studies take a unilateral perspective, i.e., focus on either the promoter side [9], or on the other stakeholders in the project [11]. In this way not only the role of one of the actors is neglected [12], there is also a risk of neglecting the crucial interactions between promoters and stakeholders [7]. The framework that we propose overcomes

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these limitations by not only focusing on the interactions between promoter and stakeholder, but also adopting a bilateral perspective (promoter and stakeholder).

2.1 Stakeholder theory

Stakeholder theory can be considered managerial in the sense that it not only predicts cause and effect relationships, but also includes notions and recommendations for structures and practices of stakeholder management [13, 14]. This is why the theory is a valuable source for providing insights on stakeholder management in complex projects [15, 16]. The obvious first notion is the stakeholder definition of Freeman [17, p. 46]: any group or individual who can affect or is affected by the achievement of the organization's objectives. From the outset of its evolution, stakeholder theory has had a clear focus on value creation [14, 18]. To achieve the organization's objectives and thus to create value, various transactions with a great number of stakeholders are required. In this way the theory emphasizes transactional motives for stakeholder management.

To distinguish and prioritize between the stakeholders, a major topic in stakeholder research focusses on the classification of stakeholders based on transactional motives [19]. In this respect, the literature's prevailing stakeholder classification model is the salience model of Mitchell et al. [6]. Salience is described as the degree to which managers or promoters give priority to competing stakeholder claims. Mitchell et al. [6] address the question of how promoters choose their stakeholders and how they prioritize among competing stakeholder claims. Promoters, they argue, perceive the various stakeholder groups in different ways: they give a stakeholder high priority if they believe that a stakeholder has a legitimate claim, one that calls for immediate action (i.e. is urgent), and possesses the power to influence the organization's activities. A stakeholder who is believed to possess these three attributes (i.e. legitimacy, urgency, and power) is labelled as a definitive stakeholder.

More recently, authors emphasize the relevance of collaborative relationships with stakeholders in value creation; stakeholder management should represent the organization's ambition for joint value creation [14, 20]. This leads to explicit attention for the relevance of relational motives in stakeholder management [21-23]. We acknowledge that both transactional and relational motives play a role in stakeholder management of projects and integrate both types of motives in the framework [24].

2.2 The research context: IS projects in Healthcare

IS projects is one of the fields where researchers adopt a stakeholder approach [25, 26]. In traditional IS projects, stakeholder management was translated in 'user participation'. Many researchers have argued that user participation is linked to system success [27, 28]. The main reason is that users possess knowledge that is necessary to develop effective information systems. Another motive for user participation is that it contributes to user 'buy-in'. This means that users feel responsibility for the success of the project and that they develop ownership through participation [29]. Despite this confined interpretation of stakeholders, this already confirms the relevance of collaborative relationships with stakeholders, as recognized in the stakeholder theory.

During recent decades, these confined notions of stakeholders have been eroded by new trends in IS projects, such as package installations, outsourcing, enterprise resource planning, customer relationship management and e-business applications. Information systems tend to increase the scope from smaller, internal, and functional areas to enterprise wide systems and systems that cross company boundaries. These developments affect the complexity of the project in terms of the number of stakeholders involved, as well as their ability to influence the system [30-32]. Recent studies therefore, indicate that common problems during IS projects are not technical, but stakeholder related. Different stakeholder groups have diverse expectations of a system or identify different implementation barriers [25, 26, 33], which may give rise to conflicts between them [57]. Therefore, successful IS projects require that promoters cooperate effectively with important internal and external stakeholder groups [34]. For promoters, this raises the question which stakeholders are important, while stakeholders may ask themselves when cooperation is beneficial or most relevant.

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However, there is a lack of research on how promoters of a project can select stakeholders to cooperate with. Some studies have developed models that help identify [3] and categorize [32] stakeholders, particularly in an IS context. The proposed framework of this study adds to these models by aiming to explain promoter-stakeholder cooperation. Analyzing the perspectives of both promoters and stakeholders is a complicated task but essential for understanding the cooperation necessary for developing acceptable information systems. This is especially true in modern health information systems, which makes this an ideal context for examining promoter-stakeholder cooperation [35].

The healthcare sector can be characterized by a broad range of stakeholders from diverse institutional backgrounds and with varying interests who work together in various ways to provide cure and care related services. Doctors from various disciplines are typically users of health IS and hospital administrators are the primary recipients of management information derived from them. In addition to these groups, nurses, support departments, a hospital's IS staff, patients, other providers of healthcare, insurers, and regulatory agencies are all stakeholders [32]. Many stakeholders of IS projects in healthcare are often relatively autonomous, and can be found inside and outside a healthcare organization. Dealing with this stakeholder landscape is an integral part of implementing health IS [36]. As such, in this sector, the issue of stakeholder cooperation is especially relevant as well as complex. Once a wider group of stakeholders is an integral part of the health IS, it is increasingly difficult to determine which part of this 'sociology of technology' should be included in the promoter-stakeholder interactions during the various phases of the project. Stakeholders have to decide to which extent they wish to participate in the project; therefore, these projects are more sensitive to, and impacted by stakeholder activities and pressures. Due to their autonomy, stakeholders in healthcare IS can easily resist the adoption of information systems and it has therefore been suggested that promoters of IS projects have to carefully manage the stakeholder relations regarding the IS project [31].

3. The bilateral double motive framework

3.1 Introduction of the framework

The key feature of the Bilateral Double Motive (BDM) framework is its 2x2-perspective on stakeholder cooperation (see Fig. 1). Promoter-stakeholder cooperation represents a focus on the interactions between promoter and stakeholder and describes the extent to which the promoter and a stakeholder collaborate on a project-related issue, with both parties aiming to achieve an outcome that creates mutual value, thereby concurring with recent developments in the stakeholder theory [14]. The extent of cooperation can range from no cooperation at all to a high degree of cooperation [37]. A high level of cooperation not only means that the promoter and the stakeholder spend considerable time together, in various forms of interactions addressing the issue, but that they also acknowledge each other's interests in that respect. This interaction can be in the form of discussions, consultations, and other forms of decision-making.

The framework builds on the stakeholder salience model [6] but adds to that by also including the stakeholder perspective. Promoter-stakeholder cooperation is perceived as a two-way activity in which both promoter and stakeholder determine their mutual engagements. Therefore, the first two-way perspective is a bilateral one, believing that these interactions depend on the willingness of both sides to cooperate. Willingness represents each actor's intentions toward cooperation.

While promoters and stakeholders might be motivated by issue-based reasons leading to single-issue interactions (as addressed in the salience model), they might also pursue establishing lasting relationships in which a series of sequential and cooperative exchanges are created. The first type of motives are transactional [17, p. 69], the latter relational [21, p. 397]. In the case of transactional motives, the issue determines an actor's timeframe: solving an issue in a beneficial way is the key driver in considering cooperation. With relational motives, the actors have a long-term perspective: they value cooperation over an issue as an investment in a lasting relationship [38]. Rather than being motivated by the solution of an issue, an actor (either the promoter or the stakeholder) is motivated more by the perceived benefits of having a cooperative relationship with a counterpart. The BDM framework also adds this relational perspective to the salience model. This leads to the second two-way perspective: the double motive perspective.

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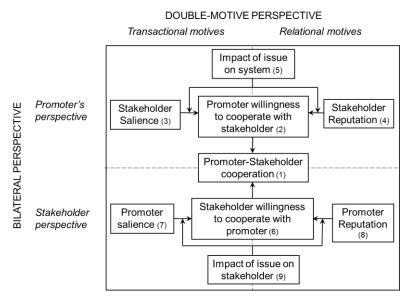


Fig. 1. Bilateral Double Motive (BDM) framework

3.2 Promoter perspective

Our aim of explaining promoter-stakeholder cooperation requires an investigation of factors that determine the willingness of both actors to cooperate. In further explaining the framework's building blocks, we start with the promoter part of the framework (i.e., the upper half). Promoter willingness (block 2 in Fig. 1) refers to how the promoter perceives stakeholders and then decides, based on this perception, how to interact with them. A promoter's transactional motives concern the perception of stakeholder characteristics that can ensure the cooperation is beneficial for the outcome on a specific issue. Mitchell et al. [6] elucidate the transactional motives present within their model in their key message: that managers give a high priority to stakeholders with salient claims. As a claim is linked to a specific issue (revealed in the salience model by its urgency), the promoter's transactional motives to pursue cooperation with a specific stakeholder on a specific issue thus depend on their perceptions of this stakeholder's salience (block 3) regarding the issue.

In the relational dimension, the promoter is motivated more by the perceived benefits (for the organization or for the promoter) of having a cooperative relationship with this stakeholder. These benefits may concern gains on anticipated future issues (maybe related to a later stage in the project's lifecycle or its wider context), but can also be more general assets, such as offering key resources and capabilities needed for the system. We use stakeholder reputation (block 4) as an indicator of the perceived value of a relationship with the stakeholder, and we assume that stakeholder reputation is based on both the potential benefits of the relationship (the relational assets – indicated by the promoter's power and legitimacy over future issues) and on the likelihood that these assets can be accessed (the perceived willingness to share the relational assets – indicated by the promoter's reliability).

Finally, we assume that the promoter's motives for cooperating on an issue may change over time and thus can switch from transactional to relational, or vice-versa. We use the promoter's perception of impact (block 5) in weighing transactional and relational motives. We assume that, when it comes to high-impact issues, the promoter is concerned that the salient stakeholders are involved whereas, particularly with low-impact issues that may function as an investment vehicle for establishing cooperative relationships, the importance of stakeholder reputation will be emphasized.

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3.3 Stakeholder perspective

In a similar vein, stakeholders face the same dilemma as the promoter: they also have to decide whether or not they are willing to cooperate with this promoter regarding this issue (block 6). Just as the promoter, the stakeholder may have two motives for this willingness to cooperate: an attempt to influence the promoter's actions and outcomes regarding the specific issue; and the potential benefits of developing a relationship with the promoter (i.e., relational reasons). As counterpart to the promoter perspective, we use promoter salience, promoter reputation and issue impact on the stakeholder as factors influencing the stakeholder willingness to cooperate.

4. Method

4.1 Unit of analysis

To examine the explanatory power of the framework, we exclusively focus on bilateral relationships within the stakeholder landscape, between the promoter and a stakeholder. By comparing four different bilateral relationships – where the two actors interact on the basis of a specific project issue – we demonstrate how transactional and reputational factors determine the degree of cooperation to resolve that specific issue. This implies that one relationship in the project, rather than the project as a whole, is the unit of analysis. We argue that studying bilateral cooperation is relevant, both for empirical and for methodological reasons. The empirical reason is that within the stakeholder landscape, a promoter has to consider and decide upon individual and stakeholder specific relations [39, 40]. The methodological reason is that in order to understand the whole, we have to understand the parts. In that respect, the BDM framework is a response to the approach of general stakeholder mappings [e.g. 6]. We add insight at the micro level to these mappings' overall view on the stakeholder landscape.

Of course, these bilateral relations take place in the context of the project at hand. By focusing on the perceived promoter and stakeholder characteristics (salience and reputation), the BDM framework not only examines the micro level, but also captures specifics of the project; these perceived characteristics can be viewed as proxies for the wider context in which the bilateral cooperation takes place. For example, a promoter's assessment of a stakeholder's power (i.e., part of this stakeholder's salience) is dependent on the context. The stakeholder's power may be based on this actor's expertise in certain fields. However, if more members in the project environment would have comparable levels of expertise, the promoter would attribute less power to this stakeholder. Not only stakeholder and promoter characteristics, but also impact of the project issue serves as a proxy for the context. Issue impact places this particular cooperation in a larger setting: the issue is part of a project including multiple issues [40], and the stakeholder's and promoter's assessment of the issue impact is relative to the impact of these other issues. The BDM framework thus addresses the micro level cooperation between two actors on a particular issue, while taking into account the project context in which the cooperation takes place.

4.2 Research design

To substantiate the explanatory power of the framework, we have opted for a research design focused at four distinct promoter-stakeholder relationships with each relationship having a specific project issue at hand. We label these project situations 'vignettes'. Vignettes are mostly used in experimental research and then are hypothetical scenarios to trigger respondents' answers to questions [41]. Similar to a vignette design, in our research, we started with explicating the specific project situation (i.e. relationship including the issue at hand) before the actual data gathering could begin.

Further, we used replication logic [42, 43] to determine whether the framework's components can explain the contrasting results. The selection of vignettes was based on a combination of (1) relevance (a complex project including stakeholder-related issues), (2) cross-case diversity (so gaining better understanding through contrasting explanatory factors), and (3) accessibility to promoters and stakeholders of the project. We derived such data from various IS healthcare projects that were ongoing during the data-collection period (2013-2014). The selection process resulted in four vignettes related to: (1) standardization of an Electronic Health Record (EHR); (2) confidentiality within an HER;

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(3) standardization of a system for Enterprise Resource Planning (ERP) in a healthcare context; and (4) adoption of an ERP in a healthcare context.

The four vignettes serve as an illustration of the BDM framework's usefulness. The vignettes are specifically selected to demonstrate how different levels of cooperation can be explained by various degrees of salience and reputation of both promoters and stakeholders. We adopt a confirmatory approach by applying the framework to challenge the assumption that unilateral, transactional motives are sufficient to explain stakeholder cooperation. The nature of this study justifies a qualitative design [43, 44] that also allows for describing promoter-stakeholder cooperation within its context.

4.3 Data gathering

To enhance construct validity, we followed a data collection protocol including interview questions, written reports, minutes of meetings, policy plans, and observations [44]. The collected data were stored in a database. The collection of documents enabled triangulation, so providing stronger substantiation of the constructs [45]. The documents have been used to validate information from the respondents, and to understand how was dealt with issues. Primary data on the actual degree of promoter-stakeholder cooperation were derived from semi-structured interviews with both promoters and stakeholders, after the issue for each of these respondents was explicated. The issue thus served as a real life vignette allowing the respondents to immerse sufficiently enough in the situation [41, p. 361]. The confidential semi-structured interviews consisted of open-ended questions derived from the research model [46]. Using semi-structured interviews also reduced the variation caused by the situation and context in which the interviews were held. Applying the same interview protocol with each stakeholder and promoter ensured that the interviews with the various participants were nearly identical. This improved the reliability in the cross-case analysis [46].

The interviews were conducted at two organizations. The first two vignettes took place at a residential care organization for the elderly in the Netherlands. This multidisciplinary organization has various facilities specializing in helping elderly people to meet their specific needs. For example, the organization has facilities that specialize in physiotherapy, occupational therapy, and speech therapy. The organization employs 930 practitioners and also receives support from about 485 volunteers. The two vignettes concerned a project to replace physical (paper-based) patient records with a new EHR. In the first vignette, the interviews were conducted with the promoter, who was also the implementer, of the EHR and a care coordinator and, in the second vignette, with the promoter and a speech therapist (a specialist within the organization). The third and the fourth vignettes both involved an organization that provides prostheses. The organization has approximately 340 employees at several locations across the Netherlands. The main location primarily houses staff functions such as the IT department and administrative departments, while the other locations provide care to the organization's clients. The employees at these locations are highly specialized in their own field and provide custom-made prostheses. The two vignettes focused on the standardization and the adoption of a new ERP system. Given that the existing ERP was no longer supported, the management had decided to adopt a newer version with fewer custom-made functionalities. A project team had been established to ensure that the re-implementation of the ERP went according to plan. In the third vignette, a team member and the promoter (project leader) were interviewed to discuss the issue of standardizing processes through the ERP. The fourth vignette focused on how the updated ERP system was adopted by the users. Here, two key users and the promoter were interviewed.

4.4 Data analysis

The interviews were recorded and transcribed. This enabled pattern matching across the transcripts [46, 48] to relate the responses from the promoters and from the stakeholders to the research model. A coding schema was used to list the various codes derived from the components of the BDM model [49]. More specifically, during the coding, the transcripts were read to reveal word repetitions, keywords in context, metaphors and expressions that indicated contrasts between the promoter and the stakeholders. We discussed our individual interpretations and this resulted in additional insights into the perspectives of the promoters and stakeholders and led to refined and more comprehensive interpretations of the promoter-stakeholder cooperation. The analyses included both within-case analysis and cross-case

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analysis to enable both an understanding of the unique patterns of each vignette to emerge and to see the structure behind these initial impressions [45].

5. Results

Table 1 presents an overview of the results of the four vignettes. The low, moderate, or high assessment of each element of the BDM framework is based on the responses of the promoters and stakeholders in the various vignettes. Below the table, we discuss the results in more detail. In this section, we pay attention to using parts of the BDM framework to understand the level of stakeholder-promoter cooperation.

Table 1. Analysis of the four individual vignettes

BDM framework elements	Vignette 1: Standardization issue	Vignette 2: Confidentiality issue	Vignette 3: Removal of custom-made functionalities	Vignette 4: Adoption issue
Promoter perspective				
Impact of issue on system	High (risk of implementation failure)	High (rejection of the IS)	Moderate/low (most operations will remain the same)	High (encountered significant difficulties when the system went live)
Stakeholder salience	High (powerful in knowledge and legitimacy)	Low (fairly irrelevant)	High (represents an important business unit)	High (had indirect power and strong legitimacy)
Stakeholder reputation	High (important position in the organization)	High (competent and expected future cooperation)	High (relationship improved and important for future issues)	Moderate (thought it was going well)
Willingness to cooperate with stakeholder	High (crucial in solving the issue)	Low (the speech therapist was not relevant in solving the issue)	High (needs stakeholder to gain project support)	Moderate (mainly because of stakeholder's legitimacy)
Stakeholder perspective		-		
Impact of issue on stakeholder	High (personal stake plus her practitioners using the IS)	Low (the issue had hardly any impact on her)	Low (did not really affect him)	High (now need to carry out more actions, takes more time)
Promoter salience	High (IT knowledge)	High (only has IT-related skills and has communication issues)	Moderate (helpful but indecisive and hesitant)	Low (promoter has no knowledge of the system, stakeholder prefers to cooperate with the other promoter)
Promoter reputation	Moderate (has only power and knowledge in the IT field. Has communication issues)	High (only skilled in IT, but seen as offering valuable future benefits)	High (useful for future issues)	Low (incompetent, again stakeholder rather cooperates with other promoter)
Willingness to cooperate with promoter	High (it was imperative for her to solve the issue)	High (future benefits made her willing to cooperate)	High (liked to work on the project)	Low (did not see the need to cooperate with the promoter)
Resulting Cooperation		-		
Level of cooperation	High (consultations, discussions, problem-solving)	Low (limited cooperation, promoter cooperated with other stakeholders)	High (cooperation was intense, they communicated a lot about the issue)	Low (almost no cooperation, cooperated with other promoter)
Part of BDM framework necessary for understanding the level of cooperation	Salience perspective: Promoter cooperates with high-salient stakeholder on high impact issue	Salience perspective: Promoter does not cooperate with low-salient stakeholder on high impact issue	Double-motive perspective: Promoter cooperates with low- salient, but high- reputation stakeholder on low impact issue	Bilateral perspective: Stakeholder does not cooperate with low-salient and low-reputation promoter on high-impact issue

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5.1 Vignette 1: Standardization issue resulting in cooperation through stakeholder salience and high impact

The introduction of the EHR meant that the practitioners had to work with standard terms, or codes, in describing the clients' health problems. Before the implementation, problems could be individually described in a free text format. The EHR, on the other hand, would only allow a choice from a standard list of one-word descriptions. The practitioners believed in applying personalized care to each client. Consequently, in the eyes of the professional staff, the new system hindered this way of providing care, and this resulted in staff resistance to the system. In this vignette, the stakeholder was the care coordinator of one of the organization's facilities.

Impact of the issue - The promoter perceived the issue as having a very high impact, believing that the EHR's potentially higher efficiency and improved information flow could be at risk if this issue was not resolved. As he put it: "Seen from a management perspective, it (standardization) was the core of EHR". According to the stakeholder, the impact of the issue was also very high: she had a stake in the system through her role and, additionally, her employees had to work with the EHR while facing major changes in their work routines.

Transactional motives - The transactional motives were high, for both the promoter and the stakeholder. The promoter rated this stakeholder as very salient. The promoter needed someone to solve the issue at hand, meaning someone to rally the employees such that they would accept the change. The promoter argued: "[The stakeholder] was really very important. (...) She was the one who eventually had to get them to go along, also in the advice towards the board, as in: 'guys, this is a good plan'. If she and a colleague had not supported in the way they did, then the [EHR implementation] could not have been achieved". Further, according to the stakeholder, the promoter was the only person she could approach to address the issue. She argued that he was the only one who had the knowledge necessary to solve the issue: "You can also see how knowledge is divided unequally, his expertise is highly technical".

Relational motives - The promoter recognized the high reputation of the stakeholder, that her position in the organization was powerful: "I think that a lot of people – including the top management members – value her opinion very highly". The stakeholder on the other hand did not in general perceive the promoter as the ideal candidate to work with, although she perceived him as highly salient with the issue at hand. She commented: "sometimes it happened that you did not comprehend each other, and you simply were not talking the same language".

Cooperation - Both actors recognized the valuable contribution that the other could add to an important issue, and both were willing to cooperate. Further, they recognized each other's complementary knowledge and resources. As a consequence, cooperation between the promoter and the stakeholder was high. They communicated, held discussions, and consulted each other regularly in order to resolve issues. As the stakeholder put it: "Sometimes you have to make compromises. That is something we both have trouble with... But in the end, we worked together in a constructive manner".

BDM framework in vignette 1 - The cooperation achieved was, based on the prevailing transactional and management view perspective as assumed in the salience model [6], as expected. The promoter cooperates with a salient stakeholder on an issue that has a high impact in the project. The upper left part of the BDM framework is sufficient to understand this situation.

5.2 Vignette 2: Confidentiality issue leading to non-cooperation through low stakeholder salience

The second vignette involved a confidentiality issue that emerged due to the implementation of the new EHR in this organization. Before this system was implemented, individual patient files were stored in a desk by each practitioner. In general, these files were only accessed by the individual practitioner caring for the patient. However, the new EHR would allow all medical staff to view what was written about a specific patient. According to the promoter of the EHR system, this led to resistance, particularly among those practitioners who perceived this information to be private. In this vignette, the promoter of the EHR and a speech therapist who had to work with the system were interviewed.

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Impact of the issue - The promoter perceived the issue as important. He argued that, if the issue was not resolved, the EHR might be rejected by the dominant coalition of stakeholders, resulting in project failure. The promoter explained: "I think that the risks, and luckily you don't realize this in advance, were pretty big. Namely, that the system would not have been accepted, and that you end up with an unworkable product, that was a possibility". The stakeholder, surprisingly, did not really recognize the issue in the same way as the promoter. For her, cooperation with the stakeholder was about making sure that the implementation went well and that various minor issues were adequately resolved. This indicates that she perceived the issue as having a minimal impact.

Transactional motives - The promoter did not perceive the speech therapist as a salient stakeholder in this issue. He stated that the stakeholder was charismatic and an important role model for her colleagues when it came to using the system. However, the promoter argued that there are more powerful stakeholders to consider. The stakeholder, on the other hand, considered that she was working with the promoter to solve the issue, and that the IS directly affected her work. The stakeholder considered the promoter to be legitimate and to have the necessary power, but that communicating with him was problematic.

Relational motives - Both parties had strong relational motives to cooperate with each other. The promoter saw the stakeholder as a competent employee with a respectable position within the organization. He also believed that having a good relationship with the stakeholder would benefit the cooperation process: "You have a relationship with each other and that makes it easier, I think. Then there is also some mutual acceptance and goodwill". The stakeholder is convinced that the promoter will involve her in future decisions, simply because that is his job as the head of the IT department. While communication issues might remain a problem, the stakeholder is confident that this hurdle will eventually be overcome. Additionally, she appreciates the way the promoter looks at issues, as this often casts new light on the problem.

Cooperation - In terms of cooperation, this vignette contrasted with the former in the sense that cooperation was limited. The promoter did not perceive the stakeholder as sufficiently salient for this issue, which resulted in a low willingness to cooperate with the stakeholder. The promoter explained: "She was not that important compared to other stakeholders. I eventually did not work with her a lot". The stakeholder did want to cooperate because she recognized the promoter as "the one who knows the system inside out and, if we run into a problem, he is the one who can find a solution". However, because the promoter prioritized other stakeholders, the cooperation between her and the promoter was limited.

BDM framework in vignette 2 - Although the outcome is the opposite to that found in the first vignette, the degree of cooperation achieved in this second vignette is in line with that expected from the prevailing transactional and promoter perspective assumed in the salience model [6]. In vignette 2, the promoter chooses not to cooperate with a low-salience stakeholder on an issue that has a high impact on the project outcomes. Again, the upper left part of the BDM framework is sufficient to understand this situation.

5.3 Vignette 3: Removal of custom-made functionalities issue resulting in cooperation through high stakeholder reputation

The third vignette took place in an organization that provides prostheses to clients that suffer from a disability or a missing body part. The issue in this vignette study concerned the re-implementation of an organization-wide ERP system. The existing customized ERP system was no longer supported and it was becoming difficult and also expensive to maintain all the functionalities of the system. The management consequently decided to update the existing version of the ERP system and to remove most of the custom-made functionalities. However, employees in the operations department were concerned that this would result in a misfit between the system and their current working processes. In an attempt to resolve this issue, the promoter cooperated with a representative of the operations department.

Impact of the issue - Both parties assessed the impact of the issue as not that substantial. The promoter argued that the impact of the standardization was moderate as "most operations continued in the same manner". While the promoter recognized that the demands of the users were important, he commented that he could not meet every need expressed.

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According to the stakeholder, the standardization did not have a huge impact on his work. As he explained: "I had some ideas about the system, so I really liked the project. But the impact is not very high". The stakeholder was quite surprised when he found that the changes were not as shocking as he had expected.

Transactional motives - The promoter perceived the stakeholder as salient, and therefore had strong transactional motives to cooperate with him. This high salience was mainly due to the fact that the stakeholder represented a large group of users from the user department. Given the size of this department, they also had the largest say during project meetings, and their vote was often decisive. The stakeholder had a slightly different view on the promoter. He perceived the promoter as helpful, but also indecisive and hesitant. He argued: "If you are talking about the word 'leader', as in leadership, then no… I find it difficult to judge, but the promoter is a gentle person who will never show himself as having a very strong personality".

Relational motives - Both parties had relational motives for cooperating with one another. Although they had no previous experience of working with each other (mainly because the promoter had only worked at the organization for six months), they recognized that this cooperation could help improve their relationship when it came to future issues. The promoter believed that, due to this cooperation process, "the barrier to contacting each other about something new has been lowered". When the stakeholder was asked whether he found a healthy cooperation also useful for future issues, he responded: "Look, we shared this experience so we now know what we can expect from each other. If I need something, or I need an opinion about something, I can always send him an email or call him. He will then investigate the issue and work on that for me, so from my personal point of view that's very handy".

Cooperation - While the impact of the issue was limited, and the stakeholder was not fully convinced of the promoter's salience, cooperation went well. One might have assumed, because the issue did not have a strong impact on either party, that it would not be sufficiently interesting to establish cooperation. Nonetheless, both parties saw the benefits of cooperation based on relational motives. For example, the promoter explained that he was "certainly prepared to cooperate with the project group members. Especially because through such a group, or via these people, you can only create more support". This support could help the promoter if other issues arose during the change project. The stakeholder explained that cooperation would improve his relationship with the promoter, which in turn could provide him with personal benefits during future issues.

BDM framework in vignette 3 - While cooperation in the first two vignettes could be explained using the salience perspective, vignette 3 has less straightforward results. In this third situation, the issue was assessed as relatively insignificant by both parties, maybe suggesting that cooperation on this issue was not really necessary. Nevertheless, the relational motives of the promoter and of the stakeholder to cooperate were classed as high. As such, the positive cooperation process seems to have resulted from the recognition that cooperation on this issue could benefit both the promoter and the stakeholder when future issues arose by improving their relationship.

In this vignette, the double-motive perspective (i.e., that cooperation depends not only on transactional motives but also on relational motives) helps to explain the cooperation: not solving an issue as such, but developing a relationship with a high-reputation stakeholder contributes to cooperation. As such, the upper right part of the BDM framework helps explain the level of cooperation.

5.4 Vignette 4: Adoption issue resulting in non-cooperation through low management salience and low management reputation despite the high impact

The end-users were required to adopt the new system and therefore had to attend several training sessions. The key-users had to facilitate the end-users' adoption process, and also test new functionalities before the system went live. The issue that arose was how the wishes of the key-users and end-users could best be incorporated into the new system.

Impact of the issue - The adoption issue had a significant impact on both the promoter and the stakeholders. The promoter explained that, when the system went live, it became evident that users were not well trained. Exercises that had been carried out were either insufficiently realistic, or employees had already forgotten how to cope with certain

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aspects of the system. According to the promoter, this resulted in considerable disturbance, and some aspects of the system had to undergo readjustments after going live in order to "smooth the difficulties". As such, the promoter recognized that the implementation process had not been flawless, and that the impact was more severe than first thought. For the stakeholders, the new system changed the way they did their work and so it had considerable impact. One of the key-users explained that due to the standardization "some tasks became even more cumbersome, but that's something you also hear from the group; that the logic isn't always there".

Transactional motives - The promoter perceived the stakeholders as a very legitimate set of people. He explained that he saw them as "captains of a group; if they feel comfortable with a new system, their subordinates will also be more inclined to use it". The key-users were also a "platform, a sparring partner, and a mirror" and, by including them in the decision-making process, the organization was able to gain more support for the system. While the promoter perceived the stakeholders as salient, the stakeholders had a completely different story to tell. When one of the key-users was asked if she had cooperated a lot with the promoter, she responded that, in fact, she did not cooperate with him at all. Rather, she cooperated with a different promoter. The key-users explained that the ICT specialist, rather than the project leader, was "the one who really made it happen". When one of the key-users was asked how she would describe the promoter, she responded: "Well... this might sound degrading of course... but I do not think he has sufficient knowledge and practical experience where it concerns the organization".

Relational motives - In relational terms, it was quite difficult for the promoter to assess the key-users' reputation. This was mainly because the promoter had only joined the organization when the project was initiated. Due to this, he could not make any judgments based on previous experiences. When he was asked how the relationship had developed through the project, he responded: "well, content-wise I am not really into the project, but I guess it has gone well". Nevertheless, he was aware that cooperation might be necessary in addressing future issues, and that he had to "maintain an optimum atmosphere" as this would provide better support for the project. The stakeholders were clear that it would not be beneficial for them to cooperate with the promoter. Given his incapability to provide them with correct answers to their questions, he was also perceived as incompetent.

Cooperation - Given the impact of the issue on both parties, and the promoter's willingness to cooperate, one might have assumed that cooperation would eventually work itself out. However, the stakeholders had such a negative perception of the promoter that they eventually decided to bypass the promoter and to cooperate with a relevant ICT specialist who was able to address the issue instead. As one of the key-users explained, "the promoter led the meetings, but... the ICT specialist answered all the questions".

BDM framework in vignette 4 - Whereas the first three vignettes can be explained by looking at the respective promoter's motives, this is not sufficient in vignette 4. In the studied situation, the promoter, because of the stakeholder's high salience, was willing to cooperate over this high-impact issue. However, cooperation failed because of the stakeholder's low willingness to cooperate with this specific promoter.

Including the bilateral perspective can explain this state of affairs because it suggests that not only the promoter but also the stakeholder need to be willing to cooperate. In our situation, the stakeholder had neither transactional nor relational motives to cooperate with the promoter regarding the investigated issue, and this resulted in a low willingness to cooperate with him. Explaining this situation requires the lower part of the BDM framework.

5.5 Cross-case analysis

The above analysis of the four vignettes illustrates that both promoter motives (indicated by stakeholder salience and reputation) and stakeholder motives (indicated by promoter salience and reputation) determine the degree of cooperation. While the salience perspective [6] is reflected in the first two vignettes, the BDM framework paints a fuller picture. In vignette 1, the willingness of the promoter to cooperate can reflect the stakeholder's high salience. However, the BDM framework also enables us to include the willingness of the stakeholder to participate because the issue had a high impact for her and the fact that she similarly rated the promoter's salience as high. In vignette 2, the cooperation failed due to the low willingness of the promoter. The BDM framework adds the additional insight that the

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stakeholder would have been willing to cooperate, albeit based only on future benefits. In vignette 3 the relational perspective and in vignette 4 the stakeholder view helps in understanding the extent of the cooperation or lack thereof. The assumption that unilateral, transactional motives are sufficient to explain stakeholder cooperation is thus challenged.

Furthermore, the effect of the impact of the issue on cooperation is illustrated in all four vignettes. With high-impact issues (vignettes 1 and 4), cooperation is directed at addressing the issue through transactional motives; here, the salience of a cooperating partner forms the leading selection criterion. With a low-impact issue (vignette 3), solving the issue is less crucial but it provides a vehicle to manage and enhance the relationship. In this situation, the reputation of potential partners becomes an important selection criterion. Finally, vignette 2 illustrates an issue that has an unequal impact on the two parties. Whereas the promoter assessed the issue as having a high impact, and consequently used salience as the criterion in deciding not to cooperate with the stakeholder, the stakeholder, perceiving the issue as of low impact, would have been willing to cooperate based on the promoter's reputation.

6. Discussion and conclusions

The implementation of strategic information systems in healthcare environments appears to be an excellent context in which to apply stakeholder management approaches. The effective implementation of information systems in healthcare is critical, because human wellbeing and sometimes even lives are at stake, while many stakeholder groups, with different interests, affect the implementation, adoption, and use of these systems [1]. Therefore, the detailed, deliberate and well-considered management of stakeholders, by promoters of healthcare information systems, is of strategic importance [30, 31]. Ignoring stakeholders with good reputations, or involving stakeholders with low salience and a poor reputation, may lead to overruns in both time and money, unproductive conflicts, and project failure. Provided the promoters of health IS understand the stakeholders' positions, views, roles, and reputations, it is likely that they will involve stakeholders in a deeper and more insightful way [50]. The same is true for stakeholders who assess the salience and reputation of promoters of health IS projects.

6.1 Theoretical contributions

The framework presented in this paper contributes to the analysis of an issue's impact as well as the salience and reputation of both promoters and stakeholders before and during the potential cooperation on an issue within the project. In so doing, this paper confirms the value of taking stakeholder salience into account when managing a project [6, 15], especially when promoters cannot exclude powerful stakeholders or force them to join [35]. The framework helps unravel and detail factors that explain, predict, and evaluate cooperation in fluid multi-stakeholder environments such as information system projects in healthcare. Further, the BDM framework enables to compare the position of stakeholders, and to explain under which conditions fruitful cooperation can be expected.

The framework builds on the influential existing work of Mitchell et al. [6] by adding the salience of stakeholders based on a transactional perspective and by introducing reputation as a second important explanatory factor in cooperation. The importance of a stakeholder's perceived reputation highlights that promoters of information systems seek cooperation with those they evaluate as reliable and influential, both in the past as well as into the future. The examples illustrate that it is an oversimplification to assume that only transactional perspectives determine stakeholder management, or that stakeholder management takes place only on the project and not on the issue level. Not only do the transactional characteristics of a current issue explain effective promoter-stakeholder cooperation, previous cooperation and expected future cooperation also play important roles.

Another important feature of the framework that has been demonstrated by the vignettes is the bilateral perspective. Many stakeholder models only take a management perspective and are thus unilateral in their approach [14] or do not distinguish between the different roles that promoters and stakeholders have [e.g. 37]. By clearly distinguishing between the promoter and stakeholder perspectives, our framework helps expose factors that determine cooperation between these two types of actors. The four vignettes clearly illustrate that promoters and other stakeholders each

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independently assess the issues and each other's salience and reputation before deciding whether to cooperate in resolving an issue. The four vignettes show how the different degrees of cooperation are determined by the different viewpoints and perceptions of promoters and stakeholders.

A third feature of the framework is the importance attached to an issue's impact. The framework suggests that promoters assess the impact of an issue both on the system and on the stakeholder. Such an assessment steers the selection of stakeholder(s) for cooperation: salient stakeholders in the case of high-impact issues, such as in vignette 1, and ones with a good reputation when the issue has only a low impact, such as in vignette 3. The implication is that promoter-stakeholder cooperation can be of value even on low-impact issues. Here, the investment may establish cooperative relationships that can be of future benefit, and management can put such issues on the agenda in order to drive cooperation.

A final aspect highlighted by the framework is the significance of adopting a dynamic perspective. Strategic health IS projects are fluid and lead to constantly changing stakeholder environments [30]. The framework can be instrumental in determining when and how an issue should emerge and be addressed through cooperation between the promoter and one or more stakeholder groups. Both the promoter and the stakeholders perceive the impact of an issue and assess the salience and the reputation of the potential collaborating partner. Based on these assessments of the perceived impact, as well as the salience and reputation of promoter and stakeholders, a cooperation might begin. Further, re-assessments of impacts, salience, and reputations will take place during the cooperation process, potentially leading to increasing or decreasing degrees of cooperation.

The BDM framework enriches the existing project management literature on stakeholder management by providing greater insight at a micro level into how and why actors cooperate. By unraveling relational as well as transactional motives, the framework explains why stakeholders are involved in problem-solving and decision-making. The future-oriented motives of an actor are a relatively novel way of explaining cooperation. As such, this can be perceived as an extension to the stakeholder salience model of Mitchell et al. [6]. Furthermore, the bilateral perspective sheds more light on how the process of collaboration is undertaken. Rather than identifying stakeholders merely as passive bystanders, the bilateral view contributes to the existing literature by recognizing that stakeholders can take active roles, which may change over time. In other words, the bilateral view provides a more comprehensive understanding at a micro level of promoter-stakeholder cooperation.

The research also suggests a broader view on complex projects. They can be managed from different perspectives including rational, emergent, participative and political perspectives [51]. While much of the traditional project management literature focuses on rational and linear perspectives [1], the proposed framework highlights the emergent, participative and political nature of complex projects by focusing on the dependency on the quality of promoter-stakeholder cooperation [4, 52, 53]. Encouraging cooperation based on an analysis of stakeholder's power and legitimacy enables a fuller use of the available resources which will lead to more effective outcomes and higher acceptance rates. We expect that multi-dimensional project management approaches that incorporate social, technical, as well as contextual perspectives will be more effective.

6.2 Implications for practice

The proposed BDM framework suggests four lessons for promoters and stakeholders of complex projects. First, promoters of such projects could apply this framework to analyze the stakeholder environment and so identify stakeholder's power and interests in order to determine the project's most important challenges and tensions. This understanding forms the basis for a deliberate strategy to manage stakeholder cooperation. If the promoter seeks to cooperate but the stakeholder perceives the promoter's salience or reputation as low, steering groups should strengthen its commitment to the project as well as the leadership of the project, e.g. by increasing the financial recourses or by strengthening the project team [54, 55]. Second and simultaneously, stakeholders can use the framework in assessing proposals for change. By assessing the impact of issues and their own and the promoters' interests, salience and reputation, stakeholders can evaluate and prepare for their possible involvement and potential contribution to a project. If the stakeholder seeks cooperation but the promoter perceives this stakeholder's salience or reputation as low, more

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effort could be spend to increase power or legitimacy, for instance, by forming coalitions with more authoritative or powerful stakeholders. An alternative strategy for these stakeholders is to highlight their reputation by pointing to future issues where their support is required. Third and based on the first two lessons, good perceived reputations can lead to a high level of cooperation, even if the issue is not considered very significant, as illustrated in vignette 3. In this example, both the promoters and the stakeholders found it worthwhile to cooperate and to strengthen their trust in each other in order to address future issues with even more confidence. Achieving easy 'quick wins' on minor topics can result in an even higher reputation of project leaders and medical professionals. A fourth lesson concerns the implementation process. This study proposes that complex projects can lead to higher acceptance rates if promoters recognize the emergent nature of such projects and rely on participation and cooperation with potential users and other stakeholders on multiple related issues. Managing complex projects thus becomes a balancing act between linear and technical as well as participative and political activities.

As such, the BDM framework can be useful at the start of a project, during its implementation as an iterative activity, or at the end in evaluating promoter-stakeholder cooperation. It is likely that this framework can be effectively applied in similarly complex multi-stakeholder environments outside healthcare IS. Promoters engaged in stakeholder management in other contexts could also use this framework to gain a deeper understanding of the transactional and relational aspects of promoter-stakeholder relationships in order to consciously decide on an appropriate stakeholder management strategy.

6.3 Limitations and future research

The results and discussion should be viewed in the light of the study's limitations. One limitation of this research is the relatively low number of vignettes. A deeper understanding of promoter-stakeholder cooperation would be achieved by extending the empirical basis of the research by including richer and more contrasting cases. This could strengthen the results and the evidence of the framework's validity. Another limitation is inherent to qualitative studies: the subjectivity of the researchers in interpreting the data. It is always possible that data are misinterpreted, consequentially biasing the results. Third, aiming explain dyads, this study was exclusively focused on a single promoter and one stakeholder (or stakeholder group). Although group phenomena can be studied in dyads [56], the interrelatedness of stakeholders may lead to the involvement of certain stakeholders, and the exclusion of others, which may subsequently change the whole stakeholder landscape. For example, once stakeholders become involved in a project, they may become more valuable to other stakeholders. These shifts among stakeholders and their interrelationships may influence the dynamics of promoter-stakeholder cooperation.

Future research could broaden the scope of the model by including more stakeholder groups and their mutual interactions. Studies might examine the implications of this interrelatedness for stakeholder analysis and management. What are the effects of cooperation between promoters and stakeholders on other actors? If the relationships among stakeholders are affected, how does this influence the promoter-stakeholder relationship? Moreover, future studies could include a large number of contrasting cases. They might also include cases drawn from other contexts than health IS. Finally, carrying out quantitative studies to validate the BDM framework could suggest interesting new avenues for further research.

6.4 Conclusions

We believe that the proposed framework highlights perspectives that are neglected in other approaches, especially the importance of stakeholder reputation, the impact of the issue, the bilateral perspective, and a process perspective. We hope that suggesting this framework contributes to new research directions and to a more advanced approach for analyzing complex stakeholder settings both in health information systems and beyond.

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