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Development of a Model to Understand How Consultants Manage Conflicts during ERP Post-implementation Change Process: A Dialectic Perspective

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Abstract:

ERP implementation and post-implementation initiatives involve changes and thus are regarded as ERP change processes. Conflicts due to various stakeholders' engagement regularly arise in such a change process. Consultants can help mediate many of these conflicts, but their contribution in managing conflicts is not adequately understood. The aim of this research-in-progress paper is thus to develop a theory-driven model to understand how ERP consultants manage conflicts during ERP change process. The dialectic perspective is used as appropriate theoretical lens which could potentially provide valuable and rich insights into understanding the broader ERP change process phenomenon.

Keywords: ERP, change process, conflicts, consultants, dialectic perspective

INTRODUCTION

Enterprise Resource Planning (ERP) systems represent a particular class of software package that integrates a range of business activities across different functional areas of an organization (Al-Mdimigh, 2007). Over the past three decades, many organizations have been implementing ERP systems to meet their growing business requirements and enabling them to successfully negotiate competition from their rivals. During this period, two waves of ERP change processes can be observed. The first wave of initial ERP implementation initiatives is undertaken by organizations to integrate a range of business activities across the organization in many cases replacing legacy systems. This initial wave of ERP implementation required industry to invest billions of dollars (Salmeron and Lopez, 2010). At present, most organizations have moved to the second wave which includes upgrading already implemented ERP systems. Upgrading during ERP change process is a costly undertaking and may not bring expected benefits to stakeholders in organizations (Khoo, 2011, Ng et al., 2003). Several studies suggested that annual ERP change process costs are approximately a further 25-33% of the initial investment (Songini, 2000). Moreover, the journey during ERP change process (regardless of the first or second waves) encounters many challenges and involves considerable risks because of varied interests of stakeholders associated with the change activities. One way to facilitate ERP change process success is to engage ERP consultants who generally play an important role in resolving conflicts and managing expectations of various stakeholders.

A major motivation of our study reported in this research-in-progress paper thus arises from the recognition that a high level of risk is generally associated with ERP post-implementation change process. This occurs due to two reasons: First, in many organizations team members responsible for ERP maintenance have limited understanding and experience in supporting ERP change process efforts (Ng et al., 2003). They may regularly encounter conflicts associated with change process of these costly systems (Ng, 2001). When such conflicts are not adequately addressed, they have the potential to cause a delay of the ERP projects (Sia and Soh, 2007) and can even lead to the failure of ERP projects (as illustrated in FoxMeyer case) (Scott, 1999). Second, ERP post-implementation change process tasks require the involvement of multiple stakeholders who may often have contrasting expectations regarding the tasks to be performed (Helo et al., 2008). This in turn makes ERP post-implementation change process activities highly complex and risky (Salmeron and Lopez, 2010). The complexity of ERP change process is also acknowledged by Finney (2011) who highlight that different stakeholders have different viewpoints about the ERP change process and suggests that there is a need for research from the perspective of stakeholders. Moreover, conflicts during ERP post-implementation (which may sometimes be different from those encountered during initial ERP implementation) have been adequately investigated. Therefore, we study the role of ERP consultants (a major stakeholder) in managing conflicts

encountered during ERP change process (involves maintenance and upgrading). These important roles have been cited in Champion, Kiel and McLendon, 1990, p.66). The role of consultants and how they help resolve these conflicts are not well documented in the ERP literature. We thus report on the development of a theory-driven model to understand how ERP consultants manage conflicts during ERP change process from the dialectic perspective. The model is expected to contribute in two ways: (a) lead to a richer understanding of ERP consultants' role, (b) examining the role of consultants in ERP change process from a dialectic perspective will potentially provide valuable and rich insights into understanding the broader ERP change process phenomenon, and c) a set of suggestions can be provided to ERP practitioners on how to negotiate conflicts by involving consultants. The rest of the paper is organized as follows. Firstly, the relevant theoretical perspectives are reviewed. Next, the model is presented, and it is then followed by a discussion of the methodological approach adopted to evaluate the model. Afterwards, the current status of this research-in-progress is described and some conclusions are offered.

BACKGROUND LITERATURE

ERP Change Process

The ERP systems implementation literature, makes it clear that the journey of ERP change process is complex to undertake and fraught with several challenges (e.g. cost and risk of failure). Many ERP systems do not deliver expected benefits to implementing organizations after being implemented (Khoo, 2011, Ng et al., 2003). ERP vendors realized that most implementing organizations require considerable support from ERP consultancy firms to adapt ERP to suit their organizations, or to modify their organization to suit the ERP systems (Wagner and Newell, 2007). ERP systems are not just a change in technology but also include sizable organizational change (Strong and Volkoff, 2004). Moreover, various theories have been developed to explain the process of change associated with ERP implementation. These are described as technological-driven (Paluszek, 2006), organizational change, or technochange (Markus, 2004). These are closely related to the various schools of thought that have been developed by Van de Ven and Poole (1995) for the information systems discipline which can be conceptualized as organization change with various schools of thought: teleological, life cycle, dialectic and evolution (shown in Figure 1). These schools of thought are developed for general information system, and they have been applied to ERP systems to describe the process of organizational development and change (Sabherwal and Newman, 2003).

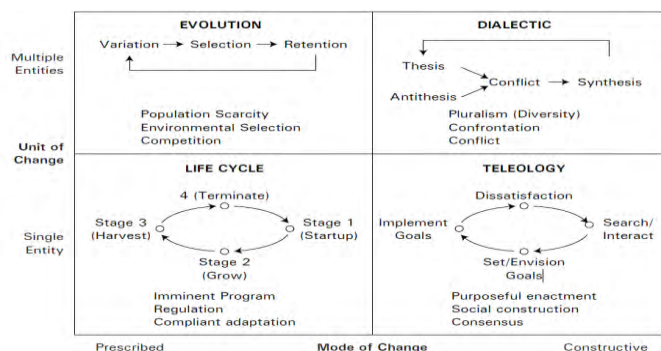


Figure 1: Organization change process theories (from Van de Ven and Poole, 1995)

The organization change process theories are often used to explain how and why organizations changes (Van de Ven and Poole, 1995). The organization change process is categorized into two main dimensions which guide organizational change (Van de Ven and Poole, 1995). These dimensions are: *Unit of change* and *Mode of change* as shown in Figure 1. Based on these dimensions the four change process theories are classified according to their action and process (Garud and Van de Ven, 2002). This classification is different from other classifications that are often used to classify organization change such as incremental versus radical change (Burgelman, 1983), continuous versus discontinuous change (Meyer et al., 1993), first order versus second order change (Meyer et al., 1993) and competence enhancing versus competence destroying change (Abernathy and Clark, 1985) as identified in Van de Ven and Poole (1995). Using these two dimensions, the organization developmental progressions can be classified into four ideal schools of thought (Van de Ven and Poole 1995). The schools of thought have been used in different research areas and have a long standing intellectual tradition and associated terminologies (Garud and Van de Ven, 2002). The four schools of thought have been described using four concepts: members, event progressions, generative mechanisms and conditions under which they are likely to operate. Additionally, Van de Ven and Poole (1995) said that the four process theories “provide fundamentally different accounts of the sequence of events that unfold to explain the change process in an organizational entity”. Weiner (2009) found change process theories an appropriate perspective on organizational change and a useful way to think about

strategic change in organizations. Moreover, each change process theory depends on a different set of conditions (e.g. in life cycle the activities passes through stages) (Garud and Van de Ven, 2002).

The *Unit of change* refers to the size of the unit that needs to undergo change. These units can be an individual person, group of people, entire organization, or population (Van de Ven and Poole 1995). In Figure 1, the nested hierarchy classifies the organizations change level into two units of change categories: single entity (individual or individual group) or interactions between more entities (groups) (Garud and Van de Ven, 2002). While, the *Mode of change* distinguishes the four theories in terms of whether the sequence of change is prescribed (either deterministic or probabilistic laws) or whether the progression emerges as the change process unfolds (Van de Ven, 2007). Moreover, Van de Ven (2007) defined a prescribed sequence as channels to develop the entities in a pre-specified direction, typically of maintaining and incrementally adapting their forms in stable and predictable ways. Whereas, the constructive mode of change is defined as generating unprecedented, novel forms which are often discontinuous and unpredictable departures from the past (Van de Ven and Poole 1995). A prescribed mode uses a pre-established program or action routine as a sequence of change events, but a constructive mode, conversely, produces new actions which are created based on the situation (Van de Ven and Poole 1995). All types of change process theories are described below.

Teleological theory: a teleological theory views development as a cycle of four concepts: goal formulation, implementation, evaluation and modification based on what was learned by the stakeholder (Van de Ven and Poole, 1995). The sequence of four concepts emerges through the purposeful social construction and consensus with the four stages described above (Weick and Quinn, 1999). ERP literature on implementation can be classified as teleological (Botta-Genoulaz et al., 2005) and critical success factors (CSFs) are part of a teleological view of ERP implementation (Fortune and White, 2005). Moreover, a significant part of ERP implementation literatures are developed and evaluated based on the strategic objectives of the organization which is classified as teleological (Lee and Myers, 2004). Van de Ven and Poole (1995) mentioned that the three steps in teleological theory: set the goal for change by observing issues, respond to the observed issues and develop initiatives which are relevant to the goals. According to these three steps the goals of change process are either achieved or not (Van de Ven and Poole, 1995).

Life cycle theory: a life cycle theory depicts the process of change in the organization as progressing through a necessary sequence of stages for organizational change (Van de Ven and Poole, 1995). Organizational change stages include a logical sequence to prescribe the specific content of the stages (Garud and Van de Ven, 2002). Each stage has a number of compulsory activities and characteristics which explain issues of change and contribute to the final successful implementation. Moreover, it assumes that change is a function of potential sequential stages “which mean the developing entity has within it an underlying form, logic, program, or code that regulates the process of change and moves the entity from a given point of departure toward a subsequent end that is already determined in the present state” (Garud and Van de Ven, 2002). From the perspective of the life-cycle theory, ERP systems implementation involves a sequence of iterative stages. ERP implementation life cycles include several stages and the life cycle perspective is quite frequently used in ERP implementation research (e.g. Wei et al., 2005) and is also combined with a teleological perspective (e.g. Nah and Delgado, 2006).

Dialectic theory: in a dialectical theory of change, conflicts emerge because two stakeholders who have opposing views (thesis and antithesis) which needs to be synthesized (Van de Ven and Poole, 1995). This synthesis action becomes the thesis for the next cycle of a dialectical process and so on (Sabherwal and Newman, 2003). Confrontation and conflict between stakeholders with opposing views generate the dialectical cycle that dominate the situation of systems change (Garud and Van de Ven, 2002). Dialectic theory helps to understand and explain the dynamics of IT development and organization change (Weick and Quinn, 1999). From a dialectical perspective, stability and change are explained by reference to the balance of power between two opposing stakeholders (Van de Ven and Poole, 1995). A contradiction can be viewed as a connection between two opposing aspects of a phenomenon, called thesis and antithesis; where antithesis is the negation of the thesis (Nordhiem, 2011). A thesis may be challenged by an antithesis, and the result of the conflict becomes a synthesis (Sabherwal and Newman, 2003). The two opposite views in the conflict are related and cannot be fully understood without considering each side (Peng and Berkeley, 1999). Van de Ven and Poole, (1995) mentioned that the change occurs when these opposing entities gain sufficient power to confront and engage the status quo.

Evolution theory: This theory views organizational change as the result of cumulative and possible changes due to competition of limited resources (Van de Ven and Poole, 1995). Moreover, this theory of development consists of a repetitive sequence through a continuous cycle of variation, selection and retention among stakeholders (Hannan and Freeman, 1989). The competition for scarce environmental resources between stakeholders inhabiting a population generates an evolutionary cycle (Van de Ven and Poole, 1995). It is mainly applied and focused on describing development of ERP software by vendors (Kumar & Van Hillegerberg, 2000). This theory is less prominent and the change at the level of the organization depends on actions taken to respond to all the needs of

individuals' entities within the organization, which then leads to organizational change over time (Van de Ven and Poole, 1995).

Dialectic Nature of ERP

Dialectic perspective is defined as a useful tool to understand a situation of change (Bjerknes, 1992). This perspective is based on Hegelian (1949) assumption of a pluralistic world arriving at the truth by stating a thesis, developing a contradictory antithesis, and combining and resolving them into a coherent synthesis. However, Van de Ven and Poole (1995) identify dialectics as a process theory that leads to organizational change. Moreover, Dahlbom and Mathiassen (1993) used the dialectic perspective to explain how a systems developer can view differing viewpoints encountered during systems development. They identified that system developers can focus on technology alone or the human process or consider these as potential opposing views that becomes the grounds for actions. This perspective is thinking based on contradictions which represent the key elements of a dialectic view (thesis, antithesis, conflicts, and synthesis) during systems development (Mathiassen and Nielsen, 1989). Robey and Boudreau (1999) mentioned that the dialectic perspective, in particular, captures the essence of opposing views which arise from conflict between opposing stakeholders. Robey and Boudreau (1999) suggested one main question should be answered through a dialectical perspective "What are these opposing forces which can arise from the conflicts/contradictions?". One potential conflict comes from technology because of the dualistic nature of technology itself (Robey and Boudreau, 1999). A dialectic perspective enables researchers to make sense of a dynamic situation of organizational change (Myer, 1994). Myer (1994) mentioned that different stakeholders' views may confuse many development issues which are often contradictory. Myer (1994) identified the main advantages of the dialectic approach are to describe real complexity in organizations (social, cultural and political systems) and enables researchers to look at information systems implementation from many different perspectives (Myer, 1994). Moreover, Keil (1991) proposed a model of implementation based on organizational problem-solving which involve mutual adaptation. Keil argues that the dialectic approach, based on problem-solving, is more realistic because it explicitly considers both technology and the organization and it provides a holistic and complete picture to understanding the problem. This approach deals with the systems conflicts in information systems development as primarily a social process (Newman & Robey, 1992). However, a dialectic perspective offers enterprise systems researchers a useful theoretical framework to understanding the social and political process of the change process (Myers, 1995). Using a dialectic approach can help ERP scholars to better understand how the consultants mediate conflict situations. This is in line with the views expressed by Soh et al. (2003) who suggested that a dialectic perspective is a potential useful tool to understand and explain the issues encountered during ERP change process. The dialectic approach has been used to develop a rich understanding and explanation to understand the way systems developers thinking about inherent contradictions related to development (Dahlbom and Mathiassen, 1993) and representative users' roles (Nordheim, 2008). Dialectics enable researchers to understand the dualistic nature of technology (Orlikowski, 1992). A technology is considered to have dualistic nature when it includes several stakeholders in a project. This dualistic view of technology is due to the interaction between technology and organizations as product of human action (Orlikowski, 1992). This human action is influenced by the different change to technology that stakeholders have chosen to focus on (Orlikowski, 1992).

Conflict Definitions and Types

Conflict is "a clash of interest (sometimes escalating to active struggle) between individuals, groups or society" (Sociology Online Dictionary). It is also a persistent phenomenon which affects processes and outcomes of a large number of organizations (Barki and Hartwick, 2001). Smith and McKeen (1992) view conflict as a real part of information systems in the implementing organization and a major barrier which affects computerization. They mentioned that conflict appears between information systems and other organization departments. Moreover, some of these conflicts are clearly mentioned by business managers and information system personnel (Smith and McKeen, 1992). For example these conflicts include: lack of trust and understanding related to information systems managers beliefs (users are hostile, business managers feel information systems is not responsive to their needs and system developers do not understand business needs), and frustration and collision with other stakeholders. However, Wong (2005) pointed out that conflicts are good because it articulates conflict situations such as misunderstanding, differ expectations from development and miscommunication between the stakeholders. This view is supported by Damanpour et al. (2006) who pointed out that some conflicts are good because they prevent group thinking which might prevent innovation. Furthermore, understanding conflicts can easily help the organization to develop proper actions and communication which improve the information system project outcomes (Wong, 2005). Moreover, ERP literature reports that a number of conflicts arise during ERP change process for example Nordheim (2011) and Allen (2005). The work of Soh and Sia (2005) has identified conflicts during the ERP post-implementation change process (e.g. misalignment between package and organization). These conflicts are similar to those reported for the initial ERP implementation change process. Therefore, we will initially use ERP change process conflicts during initial implementation as a basis to investigate the post-

implementation (second wave) ERP change process conflicts which have not been adequately discussed in the existing ERP literature.

Role of ERP Consultants

Existing ERP literature highlights various roles that ERP consultants are typically expected to play to facilitate ERP implementation in organizations. In this research-in-progress paper, the term 'role' is used to mean the functions performed by an individual ERP consultant during ERP change process. Taxonomy of ERP consultants' roles was initially proposed by Champion et al. (1990) for IT consultants which was later extended by Chen et al. (2008) for ERP consultants. According to Champion et al. (1990), nine different roles can be played by IT consultants. The model uses "consultant responsibility for client growth" and "consultant responsibility for project results" as the vertical and horizontal axis respectively. Both "consultant responsibility for growth" and "consultant responsibility for results" identify the specific consulting roles appropriate for the mix of services the consultant is expected to provide. Although many stakeholders are involved in managing conflicts, very little attention has been given to the role of consultants in managing conflicts. Therefore, it is not clear whether consultants can be considered an important stakeholder contributing to the successful mediation of ERP conflicts.

Stakeholders Involvement in ERP Systems

A stakeholder is any individual who can affect the ERP implementation or organization's objectives (Finney, 2011). The engagement of ERP stakeholders is cited as a most influential factor which leads to ERP success (Wang and Chen, 2006). ERP change process is complex because the high degree of participation of several types of stakeholders in ERP projects (Otieno, 2008) which is supported by Albadri and Abdullah (2009) who identified multiple stakeholders to be a major factor which may potentially affect ERP systems success. ERP literature has differing views about stakeholders involved in ERP change process. Some scholars (e.g. Wang and Chen, 2006) have identified two types of stakeholders: internal and external. While other scholars (e.g. Finney, 2011) classified stakeholders into four groups: managers, users, IT staff, and consultants. The external stakeholders are vendors and consultants who help the organization by providing knowledge, training, maintenance, and technical support (Ifinedo, 2008; Thong et al., 1994). External engagement of vendors and consultants who have diverse knowledge and skills are among the most widely cited positive influences in the success of ERP implementation (Ifinedo, 2008; Wang and Chen 2006). Whereas the internal stakeholders include: top management, project managers, IT staff and ERP systems users who play a significant role in ERP implementation process and outcome (Wong, 2005). Equally important is the influence of internal stakeholders, because internal stakeholders must understand and learn to use the system (Wang and Chen, 2006). Drawing on analysis of relevant issues (e.g. ERP consultants, ERP change process, ERP conflicts and ERP stakeholders), the ERP and broader IS literature as presented in this section indicate the need for an effort to propose a model to better understand the consultants role in addressing conflicts in a dialectic ERP change process. Despite the existence of a rich body of literature, little work has so far been reported that explains how consultants manage conflicts during ERP change process.

RESEARCH MODEL DEVELOPMENT

Drawing on the literature review, we now propose a conceptual research model (Figure 2) which involves two arguments: a) stakeholders are involved during ERP post-implementation change process undertaken within the context of an ERP implementing organizations; b) these stakeholders have different levels of influence, participation, and expectations of outcomes during ERP post-implementation change process. Drawing on the background literature analysis, a total of four constructs are included in the model. These are: ERP post-implementation change process; conflicts; ERP stakeholders and ERP consultant. The dialectic perspective is chosen for this research as a theoretical lens to explain the role(s) ERP consultants play in managing conflicts during ERP post-implementation change process. Each of these constructs is explained below.

ERP change process is a theory of system implementation that leads the organizations through change. During the journey of ERP change process, an implementing organization faces several conflicts. These conflicts are generated by the engagement of several stakeholders who affect the ERP change process by expressing different views. This engagement is among the most widely cited positive influences which lead to successful diffusion of enterprise wide information systems like ERP (Wang and Chen, 2006). Miao et al. (2010) mentioned that ERP change process conflicts affect learning performance and influence the relationship between the stakeholders involved during ERP change process. As a result, these conflicts influence the development teams and change process in positive or negative way (Miao et al., 2010). These conflicts are grouped into technical and ERP stakeholders. The dialectic perspective (Bjerknes, 1992) is used in this study as an appropriate theoretical lens to explain the role of consultants in managing conflicts during ERP change process. Dialectic perspective makes sense of conflicts by conceptualizing them as opportunities for actions and improvement. Moreover, this perspective potentially provides valuable and rich insights into understanding the broader ERP change process phenomenon. ERP change process conflicts arising during ERP change process of implementing organization

require the engagement of ERP consultants who can play a major role to mediate technical and stakeholder conflicts. Doom et al. (2010) stated that, there are several stakeholders who mediate conflicts with ERP consultants as a key player in mediating and resolving conflicts. The importance of ERP consultants is to address the conflicts which in turn help organizations to realize the benefits during ERP change process. This view is supported by Wang and Chen (2006) who mentioned that the consultants should be fully involved to learn more about conflict situations and to learn how to negotiate these conflicts.

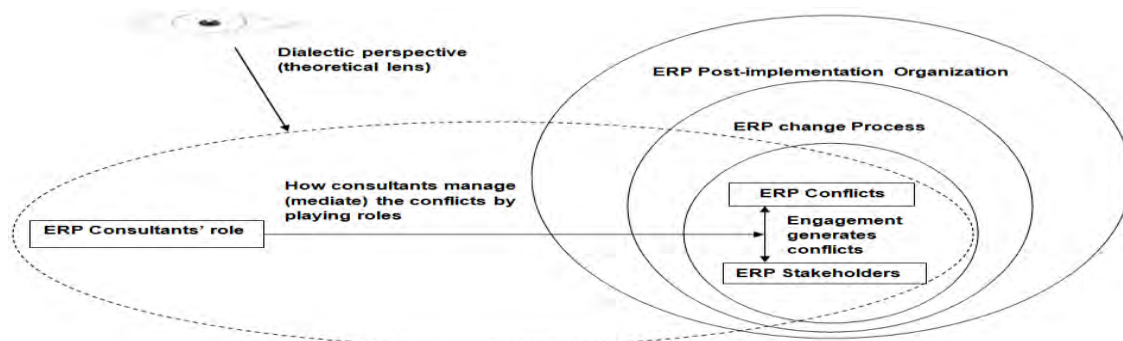


Figure 2: A model linking four constructs (ERP change process; conflicts; ERP stakeholders and ERP consultant's role)

ERP change process from dialectic perspective

Dialectic approach is a process theory which leads to organization change (Van de Ven and Poole, 1995) and is used to explain how a systems developer can view systems development (Mathiassen and Nielsen, 1989). It has been utilized in information systems to understand systems development and has been applied to ERP implementation (Robey et al., 2002). In ERP change process, opposing opinions can arise when the ERP system do not fulfil the implementing organization requirements and require customization. Robey and Boudreau (1999) suggested that taking a dialectical approach in implementing ERP systems because it explicitly recognize the opposing sides and support the implementation stakeholders to manage the tensions creatively. For example, one group of scholars (Sia and Soh, 2007; Soh and Sia, 2005; Allan, 2005; Soh et al., 2003) has applied a dialectic conceptualization to study ERP systems functionality conflicts. These conflicts occur between the structures of software and the structures of the implementing organization which can be solved either by modifying the package or changing the organization practice (Soh and Sia 2005). Whereas another study report that dialectics of learning (Robey et al., 2002) occurs between old knowledge related to practices associated with legacy systems and new knowledge related to the use of enterprise systems during implementation (Nordheim, 2008). Sabherwal and Newman (2003) identified four main stages for studying change processes. These four stages are: identify what is being changed; understand the change and identify ways of addressing it; examine the change and recognize the dynamic nature of various stakeholders' relative preference for change. The implementing organizations have to recognize these four concepts: thesis, antithesis, conflict and synthesis to fulfil the previous four stages (Nordheim, 2011). A thesis is an intellectual proposition, antithesis is simply the negation of the thesis or a reaction to the proposition, synthesis is about solving the conflict between the thesis and antithesis by reconciling their common truths, and forming a new proposition (Sabherwal and Newman, 2003). An observed contradiction may continue in the organization, maintaining the pluralistic or conflicting status quo, or it may lead to the survival of the thesis or antithesis alone (Nordheim, 2011). Moreover, the synthesis represents the underlying dialectic explanations (Sabherwal and Newman, 2003). Different views of stakeholder are the result of conflict in values that are competing for dominance in an unstable situation that usually occurs between two opposing stakeholders (thesis and antithesis) and leads to synthesis or solution (Nordheim and Tero, 2006). Additionally, Nordheim (2008) describes the importance of user representation in a dialectic process which helps the implementing organization to reach a synthesis.

ERP Conflicts and Stakeholders

We have identified two types of conflict that can arise due to ERP change process. These conflicts are grouped in two categories: technical and stakeholder. Technical conflicts are conflicts that are related to the implementation process. For example, some studies (e.g. Alsulami, 2009; Sia and Soh 2007; Soh and Sia 2005; Soh et al. 2003) mentioned that change process conflicts occur during ERP implementation when requirements of implementing organizations do not match the structures of the ERP systems and the structures of the implementing organization. This type of conflict can be solved either by modifying the package or changing the organization practice to fit the package (Soh and Sia 2005). However, workarounds are developed when an implementing organization decides not to modify their ERP systems or change their business practices (Robey et al., 2002). Stakeholder conflicts are conflicts that include task priority and relationship conflicts (Liu et al. 2011). In each stage of organizational change several views are expressed by various stakeholders related to system change (Liu et al. 2011). Miao et al.

(2010) indicate the effectiveness of dysfunctional conflicts affect learning performance as well as examine the relationship between the conflicting parties during systems change. For example, some studies (e.g. Allen, 2005, Robey et al., 2002) mentioned that stakeholder conflicts occur during objectives and priorities setting which leads to differences on a set of common aims, learning process and conflicts over evaluation fairness. Opposing views can occur between stakeholders (Allen, 2005). Each conflicting view should be analysed in detail to illustrate the different interests of each stakeholder and identified conflicts (Dahlbom and Mathiassen, 1993). Moreover, conflicts during development, all possible negotiations, compensations, or compromises should be considered because that might help to understand and contribute to resolve the conflict and support further development (Meissonier and Houze, 2010).

ERP Consultants Roles

Existing literature of ERP consultants describe several consultants play. We have analyzed and classified them in two broad categories: positive and negative roles. Positive roles refer to consultants' roles which facilitate the success of ERP implementation (Metrejean & Stocks, 2011). ERP consultants play a role in providing implementing organizations with a standardized solution for business problems. These roles include: knowledge transfer, training, project management, conflict resolution, selecting appropriate ERP systems, and technical support (Metrejean & Stocks, 2011). The influence of ERP consultants' positive roles is very important in the implementation process to overcome the difficulties of understanding the requirements of their business by offering solutions or explanations for particular issues (Skok and Legge, 2001). While the negative consultants' roles is linked to a higher rate of ERP implementation failure and is found where organization assign strategies and managerial roles to consultants (Haines and Goodhue, 2003). Despite all the positive roles it is important for implementing organizations to be aware of some negative roles of ERP consultants which may threaten the strategic objective of the implementing organizations. According to Haines and Goodhue (2003), it is important for organizations to be aware of potential negative roles ERP consultants can play during ERP implementation process and therefore these organizations should avoid assigning consultants to managerial and strategic positions.

RESEARCH APPROACH

We consider our model development to be a theory building exercise. Moreover, our study is exploratory in nature because it aims to explain the role consultants play in managing conflicts during dialectic nature of ERP change process which has not been adequately discussed in the literature. We thus seek to answer the "how", "what" and "why" questions which can help discover the role of consultants in managing conflicts during ERP change process and are best suited to support exploratory and theory building research. Within a framework of exploratory research, our study is conducted in three broad stages: literature analysis and conceptual framework development, data collection, and data analysis and theory building. Stage one are based on current published research (using Google Scholar to find papers related to research questions (consultants role, conflict, change process, and ERP stakeholders), examine the collected papers taking notes related to research questions and list common conflicts and roles as highlighted in the research papers related to research questions), stage two is the data collection (online experts panel, exploratory case study, and interviews with consultants), stage three constitute the data analysis (code the common conflicts in the ERP consultants' interviews related to research questions (consultants role, conflict, change process, dialectic), identify new conflicts and consultants role from data analysis with the literature, and compare the coded conflicts (both common and new conflicts), and consultants role, and activity ten is theory building). We adopt a qualitative research strategy for the following three reasons: a) this research project is regarded exploratory in nature because no attention has been given to examine the role of ERP consultants in managing conflict during ERP change process; b) this research project is considered to be a theory building exercise as it seeks to understand the role of ERP consultants through a dialectic perspective; and c) our goal is to understand "what" types of conflicts, "why" these conflicts occur, and "how" consultant perceive dialectic nature and play a role during ERP change process. These questions are better addressed using qualitative approach (Yin, 1994).

The first empirical phase of the qualitative approach involves the use of an online expert panel to refine the research model. This will be achieved by inviting three academics with research interests in ERP and three ERP consultants working in Australian organizations. They will be provided with the research model, research questions and interview protocol. The next empirical phase is an exploratory case study to find out how do consultants perceive the dialectic nature of ERP change process, what are the types of conflicts and the reason of occurring, and what role consultants in mediating these conflicts. The exploratory case study will help us in two specific ways: a) to assess the suitability of our proposed research framework which links three constructs; b) to refine the interview protocol so that we have greater confidence in its application during the subsequent multiple case study. As the final phase to fully evaluate the model, and develop an understanding of how ERP consultants manage conflicts during ERP post-implementation change process from dialectic perspective, six organizations will be chosen from the public and private sectors. From the private sector, four organizations from the

manufacturing and retailing sectors will be involved and the remaining two will be chosen from the state and federation government organizations. A minimum of three consultants chosen from each of the six participating organizations (who had an involvement with the ERP project) will be interviewed to share their views about the conflicts they had encountered and the roles they have played in mediating those conflicts arising during the ERP change process. Analysis of six case studies will provide opportunity for knowledge development, refining the proposed model and exploring the roles played by consultants in managing conflicts during ERP change process.

CONCLUSION

In this research-in-progress paper, we have presented a theory-driven model which involves four constructs: consultants' role, conflicts, ERP stakeholders, and ERP post-implementation change process by using dialectic perspective. The model was derived from a careful analysis of ERP literature discussed earlier in this paper. This model seeks to explain the roles consultants play in managing conflicts during ERP post-implementation change process. This model is currently being evaluated using online panel discussion, the findings of which will be reported in future publications. The model, when fully validated is expected to make contributions to theory and practice alike. The model provides a richer understanding of how ERP consultants manage conflicts during ERP post-implementation change process from a dialectic perspective. It further helps clarify consultants' role during ERP change process. The improved understanding facilitated by the model is important for ERP implementing organizations which have interests in engaging consultants.

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