

Business Process Improvement and Organizational Theory: The Missing Link

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ABSTRACT

The lack of a holistic methodology for Business Process Management has resulted in much confusion for organizations wishing to deploy Business Process Improvement projects. We argue that in order to provide some guidance for process improvement projects in particular, we can turn to existing organizational theories. Accordingly, we propose the use of organizational theories as an aid to identify critical elements in Business Process Improvement (BPI). Agency, resource-based view of the firm theory, and stakeholder theories are used for this purpose. An a-priori model is presented and shows top management involvement, process managers, staff and technical BPI capabilities, and alignment of key stakeholders' requirements as factors affecting achieved levels of BPI.

INTRODUCTION

When organizations embark on Business Process Improvement (BPI) projects, unnecessary non-value adding activities are eliminated, and core activities are improved in order to achieve higher levels of process efficiency and effectiveness. This outcome is achieved by optimizing a number of factors, such as decreasing time and/or cost of processes, increasing quality of processes or improving allocation of resources, while being attentive to the expectations of external stakeholders (Bhatt, 2000; Valiris & Glykas, 2004).

The market forecast for organizations continuing to invest in BPI projects is more bullish than anytime before (Gartner, 2006). Indeed, a recent survey by Wolf and Harmon (2006) found that 58% of the 348 completed surveys were from organizations that spent up to US\$500,000 in 2005. Between 25-40% of these projects were focused on process redesign, with 53% of surveyed organizations indicating that their process management efforts, and associated funding, would be stepped up in 2006. However, anecdotal evidence also suggests that organizations are having much difficulty in identifying their processes, let alone being innovative enough to optimize them. Partly to blame for the difficulties faced by organizations is the lack of holistic and versatile methodologies for Business Process Improvement in academic literature as well as the lack of common consensus on what exactly BPM and BPI are and what they involve. In the first steps to developing a theory-backed set of guidelines to enhance the success for Business Process Improvement initiatives, we turn to existing organizational theories in order to investigate whether these can suggest what an organization must consider in order to increase the chances of their BPI initiative being a successful one.

Accordingly, this paper provides an expose of organizational theories that can be applied to the field of BPI in order to increase levels of BPI success. We identify three theories in particular, *viz.* Agency Theory, Resource-based View (RBV) of the firm Theory, and Stakeholder Theory, and reason their applicability to this domain. The presented work forms a basis for an *a-priori* model for improving the process of BPI.

The paper is structured as follows. The next section aims to set the context of this work by defining two central terms, *viz.* business process and Business Process Improvement, and providing a brief overview. The following sections introduce and reason the three chosen theories. The paper then introduces a suggested model for improving BPI impacts and concludes with a discussion of limitations and future work.

BACKGROUND

The constantly changing hyper-competitive markets demand higher levels of organizational flexibility and performance (cost, time, and quality). In response to this need, the 1990s witnessed a breakthrough in organizational re-structuring. Organizations were shifted from their traditional function-based operations to new process- and cross-functional based operations (Giagliis, 1999).

Despite the relatively long period of time that BPI has been utilized, the term still has a wide range of definitions and interpretations (Valiris & Glykas, 1999). Larsen *et al.* (1997) and Jones (1994) state that the problem of having a wide range of synonym constructs of BPI also extends to having various definitions of the same construct. Until a common understanding of the terminology is achieved, improvement of processes will be hampered. Therefore, it is important to start by specifying some common definitions in this area.

Business Process

For the purpose of this paper a 'Business Process' is a logical entity made up of a set of ordered activities that may cross functional boundaries such as the procurement process. This logical entity requires input, adds value to this input, and produces an output to achieve a specific goal in the organization (Bal, 1998; Davenport, 1993; Harrington, 1995; Paul, 1987).

Business Process Improvement

In a relatively short period of time, studies have developed numerous explanations and identified steps on how to achieve BPI. The efforts however were not coordinated, and a large range of isolated understandings of BPI now exist. Contributions to the field of BPI, by academics and practitioners alike, can generally be categorized according to two broad dimensions, *viz.*, breadth and depth. The breadth dimension (scope) forms the foci of BPI, such as technical issues, functions, processes, organizational structure, and change management. Whereas the depth dimension focuses on the degree of change expected from BPI, ranging from simple incremental improvements to the more radical re-engineered change. Archer and Bowker (1995) named these variations in terminologies "aliases". Examples of the aliases of Business Process Improvement include "business process innovation" (Davenport, 1993), "core process redesign" (Hagel, 1993; Heygate, 1993), "business restructuring" (Talwar, 1993), "business transformation" (Buckler, 1998), and "process re-engineering" (Hammer & Champy, 1993). These alternative terminologies refer in one way or another to Business Process Improvement.

For the purposes of this paper, 'BPI' represents any of these aliases, and any other variation¹ that refers to the concept of processes and improvement of their performance and design. Furthermore, we accept that the degree of positive change resulting from a BPI initiative refers to any type of process-based improvement whether it is the result of a continuous incremental improvement or a more radical improvement such as business process re-engineering (BPR). Hence, we define BPI as the activity of reducing work processes to their essential elements, by selecting, analyzing, and improving business processes to achieve significant improvements in performance, *i.e.* cutting costs, increasing revenues, saving time, improving quality, etc.

ORGANISATIONAL THEORIES

The methodology used in this research aims at utilizing the capability of the theories to provide a holistic view of Business Process Improvement requirements. Deriving factors from previously established and proven theories provides a well grounded and comprehensive understanding of the factors and a set of already established measures. These measures in turn can be used to assess the effect of the identified factors that influence BPI levels. Valiris *et al.* (1999, p.73) highlight the effect that organizational theories can have on BPI by stating that “organizational theory methodologies add more elements to [BPI] by addressing the need to focus on... people (agents), their accountabilities, their roles, their interactions, their activities, and their use of available resources”. In agreement with Valiris *et al.* (1999), we discuss, in the context of BPI, three organizational theories and how these theories may impact BPI outcomes. Agency theory (AT), resource based-view of the firm theory (RBV), and stakeholder theory (ST) are selected as relevant theories because they offer different organizational focus and understanding. Other theories might also be applicable in this domain, however we argue that the three selected theories have a significant potential impact on the level of achieved BPI outcomes.

Agency Theory

Sometimes called *the principal-agent problem*, agency theory is based on a fundamental premise that owners (principals) establish a relationship with managers (agents) and delegate work to them (Alchian & Demsetz, 1972). Principals and agents have different self-interests (Jensen & Meckling, 1976), which creates an agency problem and requires mechanisms to minimize the problem in each instance.

Eisenhardt (1989) differentiates between two different uses of agency theory – the positivist and the general approach. The positivist approach focuses mainly on the “principal-agent relationship between owners and managers of large, public corporations” (Berle, 1932). The more general approach, followed in this paper, is the ‘Principal-Agent’ relationship that introduces Agency Theory as the “theory that can be applied to employer-employee, lawyer-client, buyer-supplier, and other agency relationships” (Harris & Raviv, 1979). The general Principal-Agent relationship can be applied to all levels in the organization, thus, providing this study a wider and more relevant coverage

Eisenhardt’s (1989) view of agency theory has several implications for BPI. First, agency theory assumes that the basis of the organization is ‘efficiency’ (Eisenhardt, 1988, 1989), which is one of the fundamental drivers of BPI. It is in the interest of managers to make sure performance within their organization is efficient. Second, cross-departmental changes, such as those resulting from BPI, can have both positive and negative impacts on organizational structures and performances and can be faced with strong opposition. It is therefore suggested that providing strong management involvement for newly introduced changes delivers a sense of obligation and provides incentives for subordinates to accept newly introduced changes. Therefore, we argue that:

H1: *Top management involvement in BPI projects achieves higher levels of BPI.*

Moreover, Yu and Mylopoulos (1994) identify three different types of agency dependency in BPI within the organization, namely: goal, task, and resource. In addition, they provide three different levels of agency relationship: general, committed, and critical, which depend on the degree to which the agent will be affected if the job fails. This general understanding of agency theory is also applicable in process-based organizations and translates into different levels of commitment and into chains of hierarchical responsibilities that establish accountability and control and thus assist in minimizing the agency problems associated with BPI change. Therefore, agency theory, through its understanding of the different interests of staff in the organization, is capable of explaining the rationale in assigning agents (process owners) to different processes as well as explaining the effects of their involvement in BPI projects. It is also argued that business process ownership provides both commitment and a wealth of knowledge to BPI projects.

H2: *A higher level of authority represented in a “process manager” (agent) over the whole process positively influences the level of improvement of the business process.*

Resource-Based View of the Firm Theory

RBV focuses on the internal characteristics and performance of the organization (Porter, 1991). The theory suggests that organizations have different types of resources that fall under two categories: (a) cooperative and strategic, and (b) competitive and financial. The theory is based on the assumption that firms have idiosyncratic, not identical strategic resources. Resources are not perfectly mobile and therefore heterogeneous (Conner, 1991; Wernerfelt, 1984). Thus, organizations are collections of resources, and the scarcer the organizational collection of resources the less the competitive advantage they actually hold.

Moreover, aside from resources, RBV theory also focuses on capabilities. Capabilities are accumulated knowledge in organizations resulting from using its existing resources in an efficient and effective way to achieve its final goals (Idris, Abdullah, Idris, & Hussain, 2003). Capabilities are divided into four main categories: functional differential, positional differential, cultural differential, and regulatory differential (Coyne, 1986). These capabilities develop from existing skills and experience (functional), as preferences of previous actions (positional), as a result of the perceptions of the individual of the organizational stakeholders (cultural), or from organizational policies and regulations (regulatory) (Hall, 1991). Therefore, in the context of BPI, the theory implies that an organization with a culture supportive of BPI, with existing process-based change regulations, and with previous experience in conducting BPI projects, will attain higher levels of BPI capabilities.

BPI shares common standpoints with RBV theory. The commonality is embedded in the belief that resources and capabilities of the organization are limited, thus, surviving organizations tend to use their resources in a cost-effective way. Functioning at optimum levels can lead organizations to create competitive advantage. Sustaining competitive advantage, however, may require continual improvements to differentiate themselves from competitors (Attaran & Attaran, 2004). Sustained competitive advantage is achieved when capabilities are able to produce value, are rare, are imperfectly imitable, and are exploited by the organization (Barney, 1991). Similarly, BPI’s fundamental philosophy focuses on improving existing operations within organizations allowing them to use resources more efficiently and effectively (i.e. produce value), and provides tailored solutions to solve specific organizational problems (i.e. unique and imperfectly imitable) (Valiris *et al.*, 2004). Sustaining competitive advantage is specifically related to the human and technical capabilities. Organizational capability in terms of staff with existing BPI-related experience and the ownership and exposure to a variety of technical BPI tools have a major impact on the final results of the BPI project. This accumulated experience has value, is hard to imitate, transfer or substitute and can be exploitable by the organization and thus creates ‘sustainable competitive advantage’ in accordance with RBV theory. Therefore, RBV theory and its competitive advantage sustainability are tightly related to BPI. Hence:

H3: *A higher level of existing BPI staff capability accumulated through previous experience with BPI has a significant and positive impact on achieving a higher level of BPI; and*

H4: *A higher level of existing BPI related technical capability in an organization has a direct positive impact on achieving a higher level of BPI.*

Stakeholder Theory

A stakeholder in general as defined by Freeman (1984, p.41) is “any group or individual who can affect or is affected by the achievement of the organization’s objectives”. Freeman (1984) traces the term ‘stakeholders’ back to the Stanford Research Institute in 1963 defining the term as “those groups without whose support the organization would cease to exist” (Donaldson & Preston, 1995, p.31). Stakeholder theory helps to improve the value of the outcomes of the stakeholder decisions by identifying the interests of various stakeholder groups and prohibiting them from being disadvantaged (Andriof, Waddock, Husted, & Rahman, 2002), ultimately resulting in greater returns to shareholders.

Modern businesses have become more transparent and accountable in order to meet their new, interactive and responsive relationships with stakeholders. Stakeholders should be defined through their legitimate interests in the organization rather than the organization’s interest in them (Donaldson *et al.*, 1995). Therefore, recognizing obligations to stakeholders helps organizations to become successful (Andriof *et al.*, 2002). This idea is also heavily supported by the agency theory. *Stakeholder focus* is the effort expended by the organization intending to satisfy the majority of the key stakeholders (Idris *et al.*, 2003). Key stakeholders in BPI are identified

in terms of the degree of reliance and interaction with the process to be improved. Thus, the larger the process the higher the number of key stakeholders involved. Clarkson (1995) affirms that persistence in dissatisfying principal stakeholders may cause the organization to fail. However, building a trust relationship can significantly lower costs, and therefore impact their performance (Barney & Hansen, 1994; Hill, 1995). The impact of key stakeholders is asserted in a variety of fields such as firms performance (Berman, Wicks, Kotha, & Jones, 1999), decision-making (Wood, 1991), and corporate social performance (Anderson, 1989).

Furthermore, this argument does not deal with the moral foundation of the stakeholder theory and the principle of fairness. The theory does not imply either that all stakeholders should be equally involved in processes (Donaldson *et al.*, 1995). The focus of this research is on the capability of the theory to accomplish multiple purposes although these purposes are not necessarily entirely congruent. Thus, the theory assists in identifying a mechanism to recognize cross points among the different requirements of key stakeholders in a BPI project.

While BPR literature recommends that executives and key staff members to be involved in BPI (Motwani, Kumar, Jiang, & Youssef, 1998), Davenport *et al.* (2004) discovered that less than 30 percent of organizations have achieved even limited information exchange with their suppliers and customers (who are also part of the key stakeholder vision). From the stakeholder theory perspective, BPI personnel should consult with affected key people throughout the different phases of the project (i.e. analysis, design, and implementation) and identify middle ground solutions.

In summary, stakeholder theory, in the context of BPI, suggests that recognizing and aligning key stakeholders' concerns can have a positive impact on the results of the project in particular and the organizational performance in general. This area is largely neglected in the field of BPI. Accordingly, we argue that identifying and aligning with the interests of various key functional based personnel, as well as other external key stakeholder groups, during a business process improvement project has a significant and positive impact on BPI projects' final results.

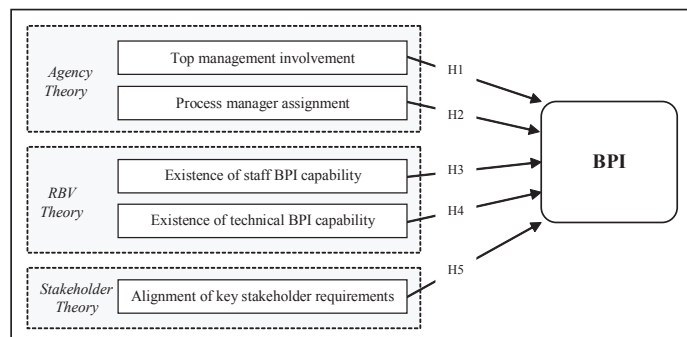
H5: A higher level of alignment² of key stakeholder requirements throughout a BPI project positively enhances the final results of BPI.

Increasing BPI Success Levels: A Theory-Based Model

Based on the hypotheses derived in the previous section, we derive a model that explains the factors that have a significant impact on the levels of achieved Business Process Improvement in organizations (see Figure 1). The model consists of five independent variables, viz. top management involvement, process manager assignment, existence of staff BPI capability, existence of technical BPI capability, and alignment of key stakeholder requirements, contributing to the achievement of higher levels of BPI results.

The empirical results from testing the model using both quantitative and qualitative methodologies will shed more light on a number of vital aspects in this field. First, the results will establish the potential capabilities of organizational theories in analyzing and solving BPI-based problems. Second, the results will show whether the theories are able, as we would expect, to forecast critical elements that can significantly advance the levels of BPI success. Finally, the approach will reemphasize the need maintain a well-built link at all times between theory and practice in any future BPI development.

Figure 1. A-priori research model



CONCLUSION

This paper provided a brief expose of the capability of organizational theories to identify and clearly explain a number of elements that are critical to ensuring better business process improvement. It is expected that deeper analysis of each of the theories will provide comprehensive insights and guidance to BPI. Therefore, we argue that creating a solid theoretical base for BPI will help identify more robust solutions and create strategic guidance to the professional development of Business Process Improvement, ultimately achieving better project outcomes.

The limitations of this work stem from the limited selection of theories chosen at this stage to explain factors that may affect BPI outcomes. Our future work in this area involves (1) identifying other potentially critical factors from the appropriate organizational theories through qualitative research theories such as semi-structured interviews with BPI experts, (2) empirically testing the *a priori* model and identifying any differences through an industry-based survey, and (3) identifying differences in the effect of the factors on various organizational contexts (e.g. industry, sector, size, culture, etc.).

The multi-method study will have an impact on theory and practice. First, it will add to the existing body of knowledge on organizational theory and its links to business process management in general. Second, the validated outcomes of the study are expected to be of significant interest to industry due to the current lack of guidance in Business Process Improvement, and Business Process Management in general (Indulska, Chong, Bandara, Sadiq, & Rosemann, 2006)

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ENDNOTES

- ¹ This assumption aligns with authors such as Kock and McQueen (1995), Archer and Bowker (1995), Weerakkody and Hinton (1999), McAdam (1996), Rohleder and Silver (1997), and Povey (1998), to name a few.
- ² Alignment: recognition, analysis, and identification of solutions for clashing requirements.

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