

# A HOLISTIC APPROACH TO BUSINESS PROCESS ENGINEERING PROJECTS

Miss Pietrou Haasbroek and Prof Antonie van Rensburg,  
Department of Industrial and System Engineering  
University of Pretoria,  
South Africa

## 1. INTRODUCTION

Organisations across the world are currently faced with enormous changes brought about by new technologies and the quest for global competitiveness. This forces the organisation to look at a variety of management and engineering techniques to use as enablers to make the organisation more change agile. The Business Process Engineering (BPE) approach formally deals with the engineering of business processes and covers the cycle of identification, re-thinking and engineering of the business process to achieve fundamental improvements in business outcomes.

## 2. THE BPE FRAMEWORK

The aim of this research is to propose a BPE framework which differs from the traditional business process reengineering thinking by focusing on a holistic approach to BPE. The BPE framework requires business process engineering to take in account *all* components of the organisation, that is *business processes, management systems, people, customers, culture, vendors, shareholders and resources* (information, assets, technology, information). Furthermore, the order in which these components are addressed will be that:

- Strategy follows the customers
- Strategy aligns business processes
- The business process is the central focal point of the organisation
- People enable the business process
- Resources support the process execution
- Values and culture ensure alignment between people, process, strategy and customers [1].

## 3. THE BPE CHANGE PLAN

The BPE framework divides the business process engineering project into three phases, the *innovation phase*, the *implementation phase*, and the *improvement phase*. The aim of this is to minimise risk by containing changes in manageable chunks through mechanisms such as milestones and deliverables.

During the innovation phase executive support is gathered in order to develop change initiatives to implement new business processes. Upon approval, solutions will be developed and implemented (the implementation phase), and improved on a continuous basis (the improvement phase) [7].

## 4. INNOVATION PHASE

The innovation phase of the BPE project aims to establish a business process strategy, resulting in a proposal (business case) to implement a number of initiatives to achieve this strategy. The phased milestones are the *project scope, case for action, AS-IS business model, TO-BE business model*, and the *business case* [7].

### 4.1. Project Scope

The *project scope* ensures an understanding of the business process context to be engineered. Critical during this step is to identify all possible stakeholders who may influence or impact the business process under study.

#### **4.2. Case for Action**

The *case for action* serves two purposes in the BPE project, first to identify the *reasons* for engineering the business processes, and secondly to define the principles, vision and strategy for the new business process.

#### **4.3. AS-IS Business Model**

The *AS-IS business model* is about discovering the “truth-about-today” [1]. The objective is to establish a cost and performance baseline for input into the development of the business process vision and strategy. The AS-IS picture includes who the process customers are, what they receive from the process, what process steps are followed, which resources are used, and how well the process performs against stated business objectives.

#### **4.4. TO-BE Business Model**

The purpose of developing a *TO-BE business model* is to create an understanding of what the future business processes should look like. The success of this design is based on how well the previous project deliverables have been completed as well as the level of team participation and understanding. This model explains which customers will be serviced, the product and service offering, and how these products and services will be manufactured and distributed.

#### **4.5. Business Case**

The *business case* is a proposal to executive management for the approval of required initiatives to implement and achieve the stated TO-BE Business Model. A cost benefit analysis is presented which shows the benefit (quantified in performance) and the cost required to implement initiatives. Supporting the business case is a release plan, which shows *how* initiatives can be implemented. However it is critical to ensure that the proposal generates an implementation plan that will realise change in the organisation.

### **5. IMPLEMENTATION**

#### **5.1. Implementation Phase**

During the implementation phase the project team and targeted business areas implement physical solutions. Success of this phase depends on a clear business process strategy, realistic implementation plans, and a project team acting as change agents. The milestones to be achieved are *design, migration, build, lab, pilot* and *rollout*.

#### **5.2. Design, Build and Migration**

During the design specification all organisational components are addressed - workflow steps, business process performance and measurement, roles and responsibilities, product & service specifications, information technology designs and human resource competency profiles. To complete the holistic business process design, policies and procedures are developed, information technology systems designed, and people recruited and trained.

Three possible scenarios can be followed for implementation, full *rollout* after the business process design is completed, *lab testing* of the business process, or a *pilot* implementation of the business process.

#### **5.3. Lab**

Depending on the implementation risk, the business process can be tested in a simulated or lab environment [1]. The team will observe behaviour and performance of the business process under a number of situations which will trigger either enhancements or changes to the system.

#### **5.4. Pilot Implementation**

A pilot implementation represents a first field implementation. It provides the implementation team with a number of opportunities of how to refine the implementation as well as business process improvements.

### **5.5. Rollout**

The rollout phase represents the physical implementation of the system across all targeted business areas. In principle a number of events are executed - training, site preparation, policies, procedures, phase-out, phase in of systems, help-lines etc.

## **6. IMPROVEMENT PHASE**

The improvement phase leads major change implementations into a continuous improvement mode. Responsibility of this phase lies with the various process owners and process workers [2]. Of importance for the success of this phase is that the continuous improvement program is well-established and supported, the performance management function supports the continuous improvement program and that individuals and teams are recognised and rewarded for their continual process support.

## **7. CONCLUSION**

Given changing business conditions the change and engineering of business processes are imperative for organisations if they want to stay competitive. Applying the principles of business process engineering within a holistic framework, it is believed that this approach will assist the organisation to sustain momentum through the implementation and establishment of new or changed business processes.

## **8. REFERENCES**

1. Computer Sciences Corporation. *Achieving IS Transformation*. (1998).
2. M. Hammer. *Beyond Reengineering*. HarperCollinsBusiness. (1996).
3. R. Mayer and P. S. deWitte. *Delivering Results: Evolving BPR from art to engineering*. Internal KBSI report. (1992).
4. Michael E Porter. *Competitive Advantage*. The Free Press. (1985).
5. PQ Business Consulting. *PQ Business Consulting Business Process Engineering Procedure*. (1999).
6. Peter Senge. *The Fifth Discipline: the Art and Practice of the Learning Organisation*. New York, Doubleday. (1990).
7. ACJ Van Rensburg. A Framework for Business Process Management. *Journal of Computers and Industrial Engineering*. 35. 1-2. 217-220. October. (1998)