

## IMPROVEMENTS OF THE BUSINESS PROCESS

## IMBUNATATIREA PROCESELOR DE AFACERI

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*The purpose is to analyze current process improvement approaches. Decision makers can be altered to both the success factors and causes of failure of different process improvement approaches, and help assure practical effectiveness of process improvement efforts. The contribution of this paper is two fold: first, empirical evidence on the drivers of success and failure of four main PI approaches, were synthesized second, based on this empirical evidence, a conceptual framework that guides both the choice and implementation of business process improvement programs is developed.*

**Keywords:** process management, business process reengineering

### Introduction

Companies are striving to gain market share in global economy, and the competition is so fierce. Quality and customer satisfaction are major items on each company's agenda, but so is profitability. The effort has to start internally, by continuously improving their business processes in every area, as well as from the "Outside-In" to reflect the changes in market requirements, and in customers' needs.

It is noticed however that, not all process improvement (PI) efforts lead to profitability increase. Many companies have experienced impressive improvement in an individual process, where the bottom line improvement was next to none.

A process is "a planned series of actions or operations (e.g. mechanical, electrical, chemical, inspection, tests) that advance a material or procedure from one stage of completion to another."

Oxford dictionary gives a more detailed definition. It defines a process as "a continuous and regular action or succession of actions, taking place or carried out in a definite manner, and leading to the accomplishment of some result; a continuous operation or series of operations." However, recognizing and understanding a process is not always easy because it cuts through departments and hierarchical boundaries particularly in service organizations. Some distinguish between three process types: strategic processes, operational processes and enabling processes (e.g. management of human resources and management of

information systems). This categorization does not give extra importance to one process over the other but “it provides a mechanism for categorizing processes at the enterprise level”.

Some defines PI as “A structured approach to performance improvement that centers on the disciplined design and careful execution of a company’s end-to-end business process.” However, not all PI efforts are successful. As reported in the literature, 50-70 percent of the PI initiatives fail to achieve their objectives.

Reasons for failure of PI effort include a focus on the tactical issues not on the issues that affect the entire business, and the lack of knowledge transferability of PI projects.

There are various methods of PI, some of them are statistically oriented (e.g. six sigma), and others utilize creativity and innovation (e.g. business process reengineering (BPR)). In this paper, we survey and analyze four PI methods; six sigma, benchmarking, BPR and process mapping, as these are the most widely used business process improvement (BPI) approaches in practice.

## **Materials and Methods**

### Classification of BPI empirical evidence

Reported evidence on actual implementations of four PI approaches are now discussed, and categorized. These include: six sigma, benchmarking, reengineering, and process mapping, respectively.

#### 1 Six sigma

Motorola initiated six sigma concept which refers to reducing the failure rate to about 3.4/million. To understand the practical extent of six sigma, it is enough to know that the average process defect rate at most companies is about four sigma or 6,200 defect/million, while six sigma defect rate is 3.4 defect/million. However, six sigma program is much more than that. It is not just a collection of statistical tools and metrics; it is a program that implements a wide range of tools in order to improve productivity and profitability. Six sigma is a standardized approach to problem solving and PI. Six sigma PI consists of five phases: define and quantify the problem; measure performance and determine defect levels; analyze data and perform root cause analysis; improve the number of defects; and control the process to insure improvements are sustained.

The success of six sigma could be attributed to many factors including: management involvement, adjustment of culture and employees’ attitude, organization infrastructure, training on six sigma methodology and tools, project management skills, and linking six sigma to business strategy, human resources, customers and suppliers. Moreover, it is important to use structured methods, select the process for six sigma improvement strategically, employ full time specialists and relate the financial and business results to the bottom-line.

Although six sigma was first used to reduce the variations and the defects in manufacturing processes, it has been extended and well received by many service industries; particularly financial institutions and healthcare.

Despite of all the promises of six sigma programs and its great success reported by several companies many other companies are dissatisfied with the results from their six sigma projects. They related this to lack of direct impact on customer, failing to involve both suppliers and customers, need of linkage to overall business objectives, in addition to viewing six sigma as just a tool and not as a complete PI approach.

Another problem with six sigma PI projects is their concentration on functional areas, which does not necessary lead to an improvement in the profit margin.

Furthermore, applying six sigma, on a process to improve it, implies that the process is sound, while, sometimes, the process needs to be redesigned. Yet, six sigma with its analytical instead of creative orientation is not equipped for this task.

## 2 Benchmarking

Benchmarking is the process of continuously measuring and comparing one's business processes against comparable processes in leading organizations to obtain information that will help the organization identify and implement improvements.

Benchmarking is defined as: A systematic and continuous measurement process; a process of continuously measuring and comparing an organization's business process against business process leaders anywhere in the world to gain information which will help the organization take action to improve its performance.

Benchmarking has been evolved from reverse engineering of competitive product, to process benchmarking, to strategic benchmarking, and then to global benchmarking.

There are different types and scopes of benchmarking: internal benchmarking, external benchmarking, competitive benchmarking, and generic benchmarking.

At the core of benchmarking is the comparison between the organization and the best practice. When an organization benchmarks the best practice, it is actually performing a gap analysis to access the difference between the two. This gap analysis is usually one-dimensional. Although, it is easier to monitor one dimension, organizations may miss on the complexity of the trade-off that exists within each company and among companies. A more comprehensive multi-dimensional gap analysis is captured in spider-web diagrams.

Regardless of the tools and scope used in benchmarking, it has been accused of its limitation to ambition, since the aspiration is to be as good as the best in industry. Even the definition of the best in industry is not clear since the best this year may not be the best next year.

## 3 Reengineering

Reengineering (or BPR) is a term to describe a mean of radical process redesign in order to achieve large-scale improvement in business performance. They defined reengineering as: "The fundamental rethinking and radical redesign

of business processes to achieve dramatic improvements in critical, contemporary measures such as cost, quality, service, and speed.”

Reengineering is different from most other PI approaches because it does not focus on what is, but rather on what should be. It does not seek to alter or fix existing processes; yet, it forces companies to ask, whether or not a process is necessary, and then seeks to find a better way to do it. We can summarize the key principles of BPR as: ambition, process focus, questioning fundamental assumptions of the process, and that information is used as an enabler and measurement of results, not as activities.

A broadly defined process should include more activities so the improvement is more likely to extend throughout the entire business. The depth is measured by the change in six elements: role and responsibilities, measurements and incentives, organizational structure, information technology, shared values, and skills. Moreover, the suitability of the reengineering method to the organizational context is of great significance. While process reengineering could benefit manufacturing and service firms, there should be distinction in its implementation to suit the unique situation of the firm.

As to reengineering success factors, it is noticed that reengineering efforts were behind many positive outcomes such as: reduce cost; increase productivity; reduce time; improve quality; reduce business cycle; increase profit; and decrease response time.

#### 4 Process mapping

“A picture shows me at a glance what it takes dozens of pages of a book to expound” (Ivan Turgenev). Process mapping offers a “visual aid” to PI and provides a mean for analyzing the process. Process mapping is not data flow diagrams or flowcharts. It is a framework that shows relationships between the activities, people, data and objectives. There are two types of process mapping: value-added process map, and Cross-functional map or process interaction map.

Process mapping is a powerful tool for improving efficiency; it could show control breakdowns, bottlenecks, unproductive utilization of resources, redundant steps; non-value added activities and root causes of problems.

Like all other PI tools, process mapping has been used by both manufacturing and service organizations and proves to be beneficial. The following list summarizes the success of various organizations in implementing process mapping:

- Simplify claim process or work done which helps improve productivity and increase speed
- Help employees understand their role in the organization and how their work affects everyone else
- Increase the ratio of value added to non-value added time

## Results and Discussion

### Proposed framework and Implementation

Several frameworks and models have been proposed in the literature for undertaking business improvement programs. It is noticed that some of these have very limited focus, while others were more generic, yet, mainly theoretical in nature. Moreover, most of these frameworks did not address, nor made use of the lessons learned from the critical success and failure factors of the business improvement practice.

#### 1 The framework role and features

The framework proposed is a tool for triggering appropriate response to change in markets requirements and/or customer needs. It also serves as a guiding reference for recovering from, root causes of problems and inefficiencies faced in the underlying business environment. More explicitly, it is intended to:

- Make use and reinforce the core competencies of the underlying organization.
- Help trigger or initiate appropriate proactive moves needed to advance the firm's competitive position ("from the Outside-In").
- Help generate feasible and effective solutions and results (from the "Inside-Out").
- Allow a direct mapping of the critical success factors of the method used for PI, and the metrics used for evaluating business performance and strategies, in the underlying business environment.

#### 2 The framework design

The framework proposed consists of three main stages.

**Specify.** This stage provides the foundation on which the BPI planning and execution efforts will be built. It involves scanning both the internal and the external business environment of the firm.

**Analyze.** At this stage, data has to be collected and information corroborated to answer the questions raised in Stage I above.

**Monitor.** The first two stages of the framework proposed above focused on planning and setting the right conditions for execution to take place effectively. This third stage focuses on monitoring closely the actual BPI execution to assure effective implementation and actual achievement of the desired outcome specified in Stages I and II.

#### 3. Implementation

Guidelines aimed at facilitating the actual implementation of the Framework proposed above, and on expanding its use for different types of operating environments. These guidelines are classified in two main categories: specific, i.e. tool-based, and general, i.e. system-based.

## Conclusions

We surveyed the Case-Based BPI literature focusing on empirical evidence on the critical success and failure factors of four PI methods; six sigma, benchmarking, BPR and process mapping. The involvement and total commitment of top management, the importance of knowledge sharing and communication, the effective use of information technology, the emphasis on knowledge transferability, and the smart choice of the process to be improved, are among the critical success factors of PI methods.

Moreover, further research is needed to examine BPI practice, not only at the firm level, but perhaps more importantly, across the supply chain partners, since a supply chain performance is determined by its weakest link. A relevant conjecture to explore here, is how the different supply chain partners can reinforce each other through appropriate BPI collaborations.

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