This document is an earlier version of a paper subsequently published according to the following citation:

**BPR in the Public Sector: A Case of Successful Failure**

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BPR in the Public Sector: A Case of Successful Failure

ABSTRACT
Recent surveys show that business process re-engineering (BPR) has had widespread adoption in western countries. This has been motivated by case studies where drastic improvements in quality, productivity, cost reduction and competitiveness have been reported. The rate of failure in re-engineering attempts, though, has been reported to be equally high. It is estimated that over 70 percent of all re-engineering attempts fail to produce bottom-line improvements. This paper describes one such failed attempt in a large public organisation in Brazil. As a result of the re-engineering attempt, the organisation had its IT infrastructure significantly improved, and the access to IT was decentralised by the downsizing of computer applications from a mainframe to a local area network. On the other hand, no radical changes in the organisation's business processes had resulted, despite the US$ 8 million invested in the BPR attempt. Moreover, even though some processes had been automated, almost no staff reduction was effected. The lack of layoffs meant that even the increase in efficiency in those processes, which by no means was radical, was not realised.

KEYWORDS: Brazil, Public Sector, Civil Engineering, Construction Industry, Business Process Redesign, Business Process Re-engineering
INTRODUCTION

Process-focused change has been the basis of several widely reported cases of organisational development projects, particularly in the 1980s and 1990s with the total quality management and re-engineering movements. Examples of successful application of total quality management to improve public organisations have been commonplace in the literature (Walton, 1991; Raff and Beedon, 1994; Hodgson, 1994). This is not the case of re-engineering, which still seems to be seen with reserve by public sector leaders.

Re-engineering, according to a survey in Champy (1995) has had widespread adoption in the private sector. Approximately 70 per cent of all private businesses in US and Europe have run, or are running, re-engineering projects. The same survey suggests that the failure rate of re-engineering attempts has been equally high - over 70 per cent. A discussion, following that survey, suggests that much of that failure has been motivated by a lack of change in management paradigms, which should accompany the radical changes in the business processes. Archer and Bowker's (1995) survey with consulting companies specialised in re-engineering indicates some other failure factors, such as lack of communication of a clear vision of the project, lack of staff participation and ownership, lack of involvement from staff at different levels, failure to instil a re-engineering culture, and lack of project organisation and planning.

In this paper we describe a failed attempt to re-engineer a public organisation. Our analysis of the case suggests that re-engineering's failure rate is likely to be even higher in the public sector, than it is in the private sector. Some of the reasons are related to factors which re-engineering groups may not be able to control, and that are characteristic of public organisations.

The data about this case was obtained through participant observation, and interviews with a group of over 50 individuals composed of external consultants and the organisation's staff involved in the re-engineering attempt. The first author of this paper was a senior consultant in the re-engineering attempt, which lasted approximately four years.
THE RE-ENGINEERING ATTEMPT

PubliCorp (a pseudonym) was a large civil engineering organisation owned by a local government in Brazil. Its hierarchical structure was composed of divisions, departments, sub-departments, sections and sub-sections. These were headed by managers with different types of backgrounds, mostly civil engineers, building legislation experts, and human resource management professionals. Some 10 to 20 per cent of these management positions were assigned to individuals whose political orientation was aligned with the local ruling party's. PubliCorp's non-management staff comprised technical, support and clerical staff. Most of the technical staff were land and building surveyors, project controllers, and engineering and law consultants specialised in the construction industry. Clerical and support staff together accounted for approximately half of PubliCorp's total permanent staff. The labourers in the construction projects coordinated by PubliCorp were employed by independent building contractors.

Threats to PubliCorp's monopoly

The organisation was initially established to act as an inspection body, and later to supply the high demand from the government for construction services. PubliCorp held a monopoly over local regulatory and related enforcement services, such as land and building inspection, which were compulsory and closed to competition. That service monopoly expanded over time, to comprise all construction services contracted by the local government.

Recently, though, a threat started to emerge. It came from the prospect of deregulation in the construction industry, caused by the increasing number of successful examples of adoption of non-compulsory quality standards in that industry. Several of these standards had been derived from international standards such as ISO 9000. The prospect of deregulation called for a radical re-thinking of PubliCorp's structure and processes. Several of these processes would likely become obsolete with the deregulation.
Identification of main problems

Two large consulting companies were hired to provide technical and methodological support to the re-engineering attempt. One was a local IT consulting company with extensive experience in the construction industry. The other was a multinational management consulting company. An initial assessment of the organisation, by a group with members from both consulting companies and the board of directors, identified two main problems to be tackled in the re-engineering attempt. That group was then split into two other groups. One of those groups, the OR group, was assigned the task of analysing PubliCorp's core business processes and radically redesigning them. The management consulting company had a strong influence on the OR group. The other group, the IT group, was assigned the tasks of setting up a new IT infrastructure at PubliCorp, and providing IT support for the implementation of business process changes proposed by the OR group. The IT consulting company had a strong influence on the IT group.

The centralisation of IT services in a central data processing department (CPD) was one of the problems identified. The CPD was responsible for running applications on a central mainframe to fulfill information requests from other departments. As several of PubliCorp's core activities were highly information intensive (e.g. set up public bids and coordinate construction projects), this centralisation turned the CPD into a bottleneck of several of PubliCorp's core processes. The second problem was the high number of internal points of contact in core processes, which was seen as negatively affecting both the efficiency and quality of the services provided by PubliCorp. This problem was caused by the large number of separate areas, divisions, departments and sections involved in the execution of PubliCorp's core processes. An initial assessment of the extent of this problem suggested that the re-engineering project would likely lead to a dramatic reduction of operating costs and an equally dramatic process performance improvement (no figures were released at that stage, though, to avoid further frustration of staff's expectations).

Setting up an IT infrastructure and downsizing applications

The IT group set up the infrastructure of a local area network (LAN), which was ready to be used about eight months after the start of the re-engineering attempt. As a result of this new
infrastructure, computers connected to the LAN were accessible to most of PubliCorp's staff. During the setting up of the LAN the IT group faced a strong opposition from CPD's staff, which joined PubliCorp's union in the criticism of the re-engineering attempt. Their main argument was that, while their salaries had not been increased for years, PubliCorp was spending a considerable amount of money with the consulting companies.

Once the LAN structure was established, the IT team set out to downsize the applications from the mainframe to the LAN server. Most of the applications had been written in a specific computer language (a dialect of the BASIC language) by members of the CPD staff. As those applications were found to require major changes in order to be downsized to the LAN, new compatible applications were supplied by the IT consulting company.

The transition from mainframe applications to LAN based applications took about six months to be completed, and intensive staff support and training was required. In the beginning, that transition seemed almost impossible, as PubliCorp's staff had been incited by CPD and union members to boycott the new applications. In spite of the CEO's support to the re-engineering attempt, the internal opposition was sharpened by sheer lack of interest from many users. This occurred particularly because the costs of adoption of the downsized applications were initially much higher, for the users, than the perceived benefits. Users had not only to adapt to the new software interfaces, but also to other changes in established standards, such as a new coding system for construction supplies. The costs of adopting the new applications were eventually offset by the perceived advantages brought about by the new general-use software applications available in the network, and fast and decentralised access to information previously available only through the CPD.

**Attempting to re-engineer PubliCorp's core processes**

The OR team had its work considerably hindered by the opposition posed by PubliCorp's staff. The OR group analysed and modeled several processes with difficulty, which added uncertainty to the subsequent redesign proposals and related structural change. Additionally, two pilot process redesign attempts involving two distinct departments failed in the implementation phase, mainly due to lack of interest from staff.
Another problem faced by the OR group was that some redesign proposals foundered on regulations established by law. The process of setting up public bids, for example, was identified as extremely complex and cluttered with several unnecessary activities. Moreover, this was one of the most frequently executed processes at PubliCorp. That process was analysed and redesigned by the OR group several times. All redesign proposals were discussed with lawyers, regarding their legal validity. These discussions, though, found that most of the changes proposed might invalidate the result of future bids. Only slight changes in the process could really be implemented, without making the process prone to be contested by lawyers representing companies that had lost bids to others.

This situation led the OR group to gradually shift its efforts to other types of activities, such as helping understaffed departments with some critical activities, like setting up bids and contracts, and developing software applications to automate existing processes. This was done at the management consulting company's discretion, and produced opposition from some members of the board of directors and the IT group. Some of the members of the board of directors aired their discontent with the fact that the OR group was not doing what it was expected to do. That is, the OR group had been established to analyse PubliCorp's processes and radically redesign them, not to use expensive consultants to perform existing processes in understaffed departments. This situation deteriorated to a conflict, where the management consulting company targeted one of the members of the board of directors. This director was eventually dismissed by PubliCorp's CEO.

In spite of the lack of dramatic bottom-line results, the situation described above persisted during the remainder of the re-engineering attempt. The IT infrastructure at PubliCorp was considerably improved. The IT group gradually moved towards the role of supplier of IT infrastructure support, whereas the OR group assumed the role of systems analyst and developer of specific applications to automate existing processes. This situation was supported by PubliCorp's CEO, whose view was that PubliCorp had been highly modernised by the re-engineering attempt. This seemed to be true, from an IT point of view. Moreover, the re-engineering attempt had been getting some positive external recognition. For example, an article praising the attempt as an "innovative and daring" project of modernisation of the public sector had recently appeared on a local independent newspaper.
A successful failure

Four years after it was started, the re-engineering attempt was hailed as a "successful re-engineering project" by some. Among these were PubliCorp's CEO, who believed he had taken over an old-fashioned organisation and turned it into a modern one, with the use of "state-of-art IT". Several local processes had been automated and the access to IT was decentralised. IT users had been given direct access to information relevant to their work by the downsizing of the applications from the mainframe to the local area network.

Others regarded the attempt as a failure from a re-engineering perspective. No radical changes in PubliCorp's business processes had been effected. Conversely, the total investment in the re-engineering attempt had been over US$ 8 million. Even though some processes had been automated, almost no staff reduction was effected. Moreover, the number of construction contracts granted by the government to PubliCorp had been reduced due to a reduction in the government construction budget. This, combined with the lack of layoffs, meant that even the increase in efficiency achieved in some of PubliCorp's processes, which by no means was radical, would not be really materialised.

WAS THE ATTEMPT A GENUINE RE-ENGINEERING ATTEMPT?

There are four primary components that characterise a re-engineering attempt as such (Davenport and Stoddard, 1994): (1) An orientation to broad, cross-functional business processes, or how work is done; (2) The need for, and possibility of, radical change in process performance; (3) Information technology as an enabler of change in how work is done; and (4) Changes in organisational and human arrangements that accompany change in technology. The re-engineering attempt at PubliCorp explicitly displays all four components listed. The component (1) was present, as the main target were the core processes of the organisation; also (2) was present, as both the need and possibility of radical change in process performance were identified early on in the attempt; the same goes for (3), as the main enabler was identified as being IT; and (4) was also present in the attempt, as process changes were expected to lead to dramatic changes in the organisational structure and human arrangements.
One can say that the case cannot be regarded as a re-engineering attempt, because the main goal of the OR group was to downsize the organisation. Organisational downsizing is typically characterised by a reduction in the number of departments, management layers and personnel. While the attempt at PubliCorp may resemble downsizing\(^1\), there was a main difference. The focus of the attempt was on business processes, rather than on the organisational structure. This is evidenced by the fact that, early in the attempt, one of the main problems identified was the high number of contact points between processes. Even though the organisational structure was seen as unnecessarily complex, a process-related motive was identified for the necessary reduction in size and complexity.

One can, conversely, say that the attempt at PubliCorp was not a genuine re-engineering attempt because it was centred on automation of business processes, as opposed to their redesign. Moreover, its main results were the establishment of an improved IT infrastructure, and the downsizing of applications from a mainframe to a local area network. Again, as with the discussion about downsizing, the main difference was the initial goal of the attempt. This goal was the improvement of the core processes of PubliCorp, not its IT infrastructure or local processes through automation. The attempt moved into that direction "by accident" - i.e. not in a controlled manner. Otherwise the attempt might have achieved its main goal, i.e. mere automation of processes and IT infrastructure upgrading. Even then it would still be difficult to maintain that the attempt was successful in creating a more competitive organisation.

It follows, from the discussion above, that the attempt was a genuine re-engineering attempt. Downsizing was a goal, but not the main element of it. Moreover, it was not actually achieved. The same is not true for IT infrastructure improvement, downsizing of applications, and automation. These were not the main goals of the re-engineering attempt, but were nevertheless achieved.

\(^1\)Organisational downsizing should not be confused with IT downsizing, which refers to the shifting of computer applications from mainframes to local area networks. These two types of downsizing occurred in the project reported in this paper.
WAS THE ATTEMPT SUCCESSFUL?

The answer is "no". Successful re-engineering projects are those not only whose target core business processes had undergone radical change, but also whose implementation efforts led to radical organisation-wide improvements in quality and productivity. There are several representative examples in the literature, which display these characteristics (Bell, 1994; Caron et al., 1994). This situation is far removed from localised process improvement, such as the highly desirable results obtained through quality management approaches (Deming, 1986; Juran, 1989; Ishikawa, 1986).

It is undeniable that there were local business process improvements in the re-engineering attempt, due to the empowerment of IT users, and the decentralisation of computer applications. These improvements, though, lacked enough breadth and depth to generate bottom-line organisational results. Paradoxically as it may sound, the results of the re-engineering attempt have been overall negative. The improvements did not match the investment made; therefore the return on investment was negative. This type of paradoxical results is not so rare to occur. According to Hall et al. (1993, p. 119) "...paradoxical outcomes [similar to the ones narrated in this paper] have become almost commonplace".

THREE REASONS FOR THE FAILURE

Having answered the two questions of whether the attempt at PubliCorp was really a re-engineering attempt, and whether it was successful as such, a third question arises. Why has the re-engineering attempt failed? A reflective analysis of the case suggests that there were three main reasons for it. The first reason was the leveling, by PubliCorp's CEO, of political interests with objective goals. The second was the gradual shift of the focus of the OR group from core business process redesign to problem solving and automation of existing processes. The third reason was the hiding of failure signs. This happened consciously at first, for self-preservation. Later, though, this became unconscious and was reinforced by social-facilitation. These reasons are discussed separately next.
Political and objective goals were leveled

One of the main problems every re-engineering group will face in a public organisation is the multitude of purposes that these organisations may have to serve. PubliCorp's CEO, supported by some of its top management, was initially looking for radical quality and productivity improvement. However, the progress in the re-engineering attempt clearly indicates that he was prepared to accept other results - provided that they were at least "apparently" positive.

The case suggests that political issues may be considered of higher importance in public organisations than "mere" organisational results, depending on the political orientation of those involved. This is poorly aligned with the underlying down-to-earth philosophy of re-engineering. Re-engineering typically increases organisational productivity. It enables organisations to produce more, with lower costs. In service organisations, such as PubliCorp and most organisations in the public sector, most of the costs are labour costs. Therefore, a typical re-engineering project in the public sector will lead to massive layoffs. These, though, normally go against promises made to the electorate during the political campaign. Even if this is not the case, massive layoffs are likely to strengthen the argument of the opposition parties, unless they are accompanied by real benefits to a larger population. Even though, there must a well-orchestrated structure to advertise those benefits. There will always be the temptation to take the shortcut, as PubliCorp's CEO did, of "keeping up appearances".

The OR group gradually shifted its focus

The shift in the focus of the OR group, from re-engineering to process automation, is clear from the narrative. However, during the re-engineering attempt that shift was not easy to perceive and therefore to counter. This is particularly valid in cases where the radical process-focused characteristic of re-engineering is not well understood, or tends to be avoided due to barriers that may show up on the way. Two significant barriers to the OR group work at PubliCorp were the general opposition faced from PubliCorp's staff, and the limitations on change imposed by law.
The avoidance of a radical change approach, which seems to be the case at PubliCorp, may lead to an attitude where the underlying structure of processes is not the focus of improvement. This focus moves to the improvement in the efficiency of those processes and the solution of superficial problems, which can still be defended as a process-focused approach to improvement. This attitude seems to be in tune with much of the practice incorrectly referred to as re-engineering today. This practice, well aligned with Davidson's (1993) first phase in business transformation, places emphasis on the automation of existing business processes to improve their efficiency. This is far removed from what Hammer and Champy (1993) and Davenport (1993) call re-engineering.

A double bind prevented recovery

In the case, the lack of understanding of the true nature of re-engineering did not seem to be the main reason why the focus of the re-engineering attempt moved from radical to incremental improvement. Even if some misunderstandings did exist, they seemed to have been combined with another type of behaviour, commonly observed in stressful business situations. This behaviour is presented by managers and decision makers faced with what is described by Argyris (1977) as a "double bind". The double bind comprises two norms, the one that says "hide errors" and its opposite that says "reveal errors". If managers choose the first norm they know that what they do is necessary yet counterproductive to the organisation. If they choose the second norm, though, they risk exposing a whole network of camouflage and deception. The choice often lies on the less risky norm that says "hide errors".

In double bind situations, managers at first consciously refuse to admit that there are problems. This approach is taken to avoid the consequences of having to deal with those problems. Then, influenced by social facilitation factors (e.g. this behaviour is reinforced by peer support), they gradually start to lose sight of those problems, as if they did not actually exist\(^2\). In the re-engineering attempt at PubliCorp, the OR group, when faced with the prospect of failure, shifted its focus to less problematic intermediate goals. This was done for self-preservation. Intermediate goals were initially

\(^2\)One instance of this phenomenon is known as groupthink. See (Janis, 1972) for a detailed study of groupthink and its negative impact on decision making in the public sector.
used as an excuse, but soon they began to be seen as the "real goals" of the re-engineering attempt. This found support from some management staff, which reinforced the belief that those were the goals to go for. In PubliCorp's case this situation was compounded by the fact that this support came also from the CEO.

CONCLUSION

This paper describes a failed re-engineering attempt in a large public organisation in Brazil. The organisation, a civil engineering company, had objective and subjective reasons to undergo a re-engineering attempt. Among the objective reasons was the threat of deregulation of the construction industry. Among the subjective reasons were the increase in political prestige associated to the modernisation of the organisation through IT, and to the decentralisation of information access and use of software applications.

An analysis of the attempt at PubliCorp suggests that there were three main reasons for the failure. The first was the leveling, by the CEO, of political and objective goals. The second was the gradual shift in the focus of the re-engineering attempt, from radical core process redesign to local improvement and automation. The third, was the "double bind" situation that at first led the OR group to consciously hide problems. This attitude was then reinforced by the support from management staff, leading to a complete lack of awareness of the problems and a belief that the re-engineering attempt was achieving its goals.

REFERENCES


