



**MANAGING QUALITY INITIATIVES IN
SERVICES: JIT DELIVERS BUT BPR FAILS**

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Abstract

This paper reports on initiatives whereby JIT and BPR approaches are being used with technology to improve business processes in a large public sector organisation. Initially the study pursues the benefits of reducing waste in service processes and transferring the revised processes to an electronic base. Significant gains in productivity and customer satisfaction are demonstrated. Further evaluation after 18 months indicates that benefits still exist but that they change over time. Finally, the study explores whether similar application of BPR thinking enables gains to be achieved across the wider organisation and finds that comparable benefits are not realised. Major impediments include conflict between organisational structures and strategy, and lack of direct business imperatives with respect to the changes.

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INTRODUCTION

In an environment of increased accountability, decreased budgets and outsourcing, managers are seeking to improve their business processes and to make optimal use of available resources. Specific changes that lead to greater internal efficiency and increased customer satisfaction therefore offer significant potential in increasingly competitive service situations. Remarkable increases in productivity, quality and responsiveness have been reported as a result of the application of the Just-In-Time (JIT) philosophy of waste elimination in services (Duclos *et al.*, 1995; Inman and Mehra, 1991; Wasco *et al.*, 1991). Similarly, Business Process Reengineering (BPR) leads to increased efficiencies and productivity via process improvement and redesign (Hammer and Champy, 1994; Manganelli and Klein, 1994) and there is evidence that quality initiatives, such as Total Quality Management (TQM) and JIT, increase the likelihood of success of BPR (Kelada, 1994; Nissen, 1996).

Information Technology (IT) is identified as a significant enabler in implementing changes and achieving the productivity gains conceptualised through both the JIT philosophy and BPR techniques (Mauil and Childe, 1994; White and Fisher, 1994). However, authors also emphasise the organisational and cultural issues associated with sustaining changes based on IT (Whyte and Bytheway, 1996) and BPR (Gadd and Oakland, 1996). The success of quality initiatives in services therefore appears to require a suitable organisational environment and the alignment of business structures and imperatives with outcome measures (O'Neill and Sohal, 1998).

This paper reports on a study in which a large public sector organisation commenced their improvement activity by applying the JIT philosophy of waste reduction to four internal service processes and transferring them to an electronic base, thereby taking advantage of the IT available in the organisation. The success of this initiative is explored by a survey of users after a three month period, and the implementation issues and sustainability of the changes gauged by interviews with participants after a further 18 months. During the elapsed time period, corporate direction emphasised BPR as a means of achieving greater efficiencies, and initial successes provided further stimulus for BPR in a much more ambitious manner across the organisation. The study therefore explores whether the successful JIT initiative facilitates reengineering activities and the adoption of changed processes throughout the wider organisation.

JIT as a means of improving business processes

The concept of JIT has evolved from early definitions which focused on the reduction of inventory to reduce capital investment (Hutchins, 1988) and necessarily included elimination of waste, continuous improvement in quality and productivity, and decreased throughput time (Finch and Luebbe, 1995). Contemporary approaches emphasise reduction of any form of waste, and reduced cycle times, as a means for organisations to achieve increased flexibility and market responsiveness, now seen as imperatives for sustainable competitive advantage (Gaither, 1994; Schonberger and Knod, 1997). Other elements that emerge in a strategic rationale for JIT applications in services, include reduced costs, increased revenue, enhanced productivity and increased market share. The common characteristic is that all of these elements ultimately contribute to the value and/or profitability of the enterprise.

The reported applications of JIT in services appear to emphasise reduced cycle times and improved communication with resultant effects on throughput and productivity. For example, Feather and Cross (1988) report an achievement of 60% reduction of throughput time and 80% reduction of backlogs by one-at-a-time processing of contracts, investigating bottlenecks and eliminating buffers. Schonberger (1993) reported the use of kanban for document processing and indicated an improvement in order time from an uncertain number of days to less than one day. Lee (1990) describes a finance company where workflow in administration was improved, reporting a decrease in loan processing time from 12 to four days. Conant (1988) used decreased batch sizes in managing telephone orders and indicated that employees worked faster

and more efficiently. Billesbach and Schniederjans (1989) compare target areas for wasteful activities in manufacturing with corresponding processes in administration and suggest that there are a number of transferable techniques.

While there is reported evidence of success with JIT approaches in services, there are also many other potential applications and outcomes. Applications include the reduction of waste such as errors in processing, unnecessary steps, duplication and transport; analogies to the reduction of inventory such as minimising queues and waiting lines, and eliminating bottlenecks. The outcomes of such initiatives should lead to performance improvement in a variety of areas, including employee productivity and customer satisfaction. Specific examples of such outcomes are explored in the first component of the study reported here.

Business process reengineering as an improvement strategy

JIT is inextricably related to the quality movement, and both JIT and TQM are built on a philosophy of continuous improvement and incremental progress towards both greater organisational efficiency and customer satisfaction (Fogarty *et al.*, 1989). Hammer and Champy (1994, p. 49) suggest that quality programs and reengineering also share a number of common themes.

"They both recognise the importance of processes, and they both start with the needs of the process customer and work backwards from there. However, the two programs also differ fundamentally. .. Quality improvement seeks steady incremental improvement to process performance. Reengineering .. seeks breakthroughs, not by enhancing existing processes, but by discarding them and replacing them with entirely new ones. Reengineering involves, as well, a different approach to change management from that needed by quality programs."

The concept of reengineering as seeking breakthroughs is reflected in the essential elements shared by formal definitions: reengineering involves strategic rethinking and radical redesign of business processes; reengineering is customer-oriented and value-added; and its outcome is enhanced performance in critical contemporary measures such as cost, speed, service and quality (Hammer and Champy 1994; Johansson *et al.*, 1993; Manganelli and Klein 1994). Specific approaches to BPR and process improvement provide evidence of these elements. For example, Maull and Childe (1994) report on a study from the banking sector in which teams looked for opportunities to develop lean processes by reducing bureaucracy, duplication, and process cycle times; simplifying forms, undertaking value-added assessment of activities and reducing the number of exception routines. However, while Maull and Childe use the term BPR, they note that the changes they report are really incremental (and therefore better described as quality initiatives or process improvement), and that the next phase of improvement should encompass BPR in a manner more closely aligned to its definition.

The relationship between BPR and the quality movement has been examined (Gadd and Oakland, 1996; Kelada, 1994), and in some cases, the continuous improvement approaches, JIT and TQM, are seen as a pathway to developing an organisational culture receptive to higher level and more radical changes. Johansson *et al.* (1993, p. 15) suggest that JIT and TQM are 'tactical process-oriented principles' which provide a pathway of questioning how things are done, and why they are done which is necessary before companies can progress to the strategic level of operations excellence embodied in BPR. Similarly, Roos and Bruss (1994) take advantage of technologies that are based on a quality management approach in the guidelines that they suggest for radical redesign of work. Davenport (1993) discusses the fundamental distinction between process improvement and process innovation, and the differences he demonstrates are consistent with the continuous improvement paradigms of the quality movement (process improvement) and the radical changes associated with reengineering (process innovation). There is, therefore, sufficient reason to believe that when a quality initiative has been implemented, success with BPR may follow. This assumption is explored in this study.

Information technology as a vehicle for change

The close association between business process initiatives and the application of Information Technology (IT) is acknowledged (Davenport, 1993; Gadd and Oakland, 1996; Maul and Child, 1994). Further, impressive returns in productivity and customer satisfaction can be expected. Jackson and Humble (1994) report on an organisation that involved its people in an IT project with the aim of improving administration and achieved remarkable results with respect to customer satisfaction, throughput, staff required and office space. However, the adoption or proposed adoption of IT is usually associated with very ambitious outcomes and may cause a number of issues to emerge. For example, White and Fischer (1994, p. vi) emphasise the need for IT to "yield sustainable improvements in profitability, productivity, customer satisfaction and quality while maximizing the potential of the individual and the team."; Jackson and Humble (1994, pp. 36-7) state that IT is

"failing to deliver the promised and expected benefits .. problems are aggravated by the seeming inability of business managers and IT experts to converse. Information technology is seen as distant, remote from business, which in turn is accused of not recognizing the enormous contribution IT can make."

These inherent needs and conflicts in using IT as a vehicle for change are reinforced in the work of Whyte and Bytheway (1996) who suggest that studies pursuing information systems' success have focussed on aspects of the systems rather than the changes such systems initiate. In relation to a public sector organisation they studied, Whyte and Bytheway conclude that significant difficulties are not technical, rather they are organisational, and relate predominantly to questions of customer service and business benefits. Understanding the organisation and developing the means whereby employees can be involved and committed to change, and therefore ready to participate, affects acceptance by users and, ultimately, system utilisation and success (Kimble and McLoughlin, 1995).

Some authors note that changes to organisational practices and structures tend to occur far more slowly than computer-based applications, and that the impact of information systems is not a single stable and predictable outcome but an ongoing process that changes and evolves over time (Kimble and McLoughlin, 1995; Swatman, 1994). Thus, while IT emerges as an accessible and powerful means of transforming workflow and reengineering initiatives into reality, it appears that organisations may need to address issues related to integrating IT and business objectives, and considerable energy may need to be expended on managing the change processes. In their list of major reasons why IT projects fail, Roos and Bruss (1994, p. 41) include: failure to implement essential non-technical solutions, such as training, workflow redesign, or new organisational structures; alienation of the people who have to make the project work, "causing slow adoption or even sabotage"; and implementation of the project at only the departmental level, rather than at the enterprise level, where the greatest opportunity for gain is likely to exist. These possible areas of failure provide focal points for investigation in this study.

In conclusion, a review of relevant literature suggests that significant benefits should be demonstrable when JIT, BPR and IT initiatives are integrated and adopted. Further, academics and practitioners would benefit from knowledge that shows how maximum impact from such improvement initiatives is obtained and sustained (Gilbert, 1995). It is well acknowledged that expenditure on improvements is not always profitable and the expertise needed to manage change is considerable (Foley, 1997). Quality initiatives and technology appear to have enormous potential to enhance productivity in services but the management issues also appear to be complex and comprehensive. This study pursues greater understanding in these areas.

AIMS OF THE RESEARCH

1. To identify the benefits realised in a project whereby four business processes were reviewed to reduce all forms of waste and subsequently transferred to an electronic base.

2. To explore whether the activities of the initial quality project established a means of extending benefits to the wider organisation within the framework of BPR.
3. To explore management issues in relation to ensuring and sustaining the benefits of changes.

BACKGROUND TO THE CASE

The organisation on which this case is based, is a large public sector organisation with some 5,000 employees in one state of Australia. It is divided on a regional basis and the first two phases of the research reported here were predominantly with one of the regions, representing more than 500 employees. The organisation is faced with a continuing dilemma in that the volume and integrity of information required to equip staff to undertake core business tasks with confidence requires rapid and efficient organisation, and there are significant complexities involved in disseminating up-to-date, and often confidential, information to a diverse and geographically dispersed organisation. Issues related to accuracy and currency are interspersed with the need for information to be immediately accessible and easily retrieved.

The organisation has invested in a sophisticated internal computer network which provides a vehicle for the application of technology to facilitate the extensive networking of information and transaction processing. It was therefore proposed to equip staff with on-line access to current resource information, and to make provision for the electronic transmission of interactive documents. These initiatives, it was suggested, would improve the availability and accessibility of information and enhance decision-making; speed up the processing and accuracy of transactions; improve the productivity of staff; and improve internal customer service and satisfaction. A project was therefore funded in which four business processes, combining policy or scheduled information and transactions, were reengineered and transferred to an electronic base. The electronic base involved networking Netscape software, browsing software used on the Internet, and electronic transaction processing, utilising groupware.

METHODOLOGY

Phases of the research

This research has been conducted in three phases. The first phase consisted of a pre-trial survey of two regional departments of the service provider. The data provided initial benchmarks, demonstrated the similarity in profile of the two groups, and established that the region who would conduct the project was representative of the organisation. During the second phase of the research, four months later, the project region was surveyed again using a very similar questionnaire. The second data set enabled comparisons to be made based on information provided before and after the implementation of the project, and conclusions to be drawn based on questions that related specifically to the project outcomes. The third stage of the process, conducted 18 months after the second phase, involved qualitative research. The data was collected during separate semi-structured interviews (of approximately two hours duration) with three managers from the organisation, and a group session (of approximately three hours duration), involving four others who had been extensively involved.

Sample

There were 77 respondents to the survey conducted prior to the pilot project, 41 of whom were from the region where the project was implemented. In both regions the respondents represented a variety of classifications and included approximately one third who work in the field. After the four month trial period, the 41 respondents from the selected region were invited to respond again and 39 returned the surveys via the internal mail system.

For the final stage of the research, three separate interviews were conducted with the Regional Resource Manager; Manager, Finance and Administration; and Manager, Human Resource Development. In addition, a group session was conducted that involved representatives from the corporate groups, Personnel and Information Technology.

The pilot project

In summary, the pilot project was established to research and evaluate the efficiencies in networking a selection of business processes within the organisation's computer network, using intranet and groupware technologies. As part of the project, and prior to transfer, the business processes were subjected to detailed scrutiny and considerable change consistent with quality (JIT) and reengineering (BPR) principles. This review of the processes was initially performed by a group of five, who represented a wedge of the organisation.

Access and training was provided to 52 staff in one region who were drawn from six different locations. These employees provided the focus for ongoing evaluation of the pilot project.

Extending the project

The successes achieved by the pilot project provided a substantial case for reengineering other processes and for wider implementation of intranet and groupware technologies in the organisation. Detailed productivity savings based on both the results of the pilot and time studies of reengineered processes were estimated. By completion of the pilot, executives in the organisation were also required to adopt BPR as a management technique, based on government direction, and corporate support was obtained for greater activity. The pilot project was assessed by consultants external to the organisation and 11 detailed recommendations were subsequently published and approved. A concurrent activity involved the recognition of the need for change management training, which was developed and delivered throughout the state.

RESULTS AND DISCUSSION

Benefits realised by the initial changes

The surveys conducted before and after the pilot project indicated that the regional group had achieved very impressive results in terms of increasing access to information, productivity levels of employees and customer satisfaction. Details are provided in Table I.

In relation to the accessibility of information, reference to others, such as supervisors, or representatives from other functions in the organisation decreased markedly. This result is possibly more important than the raw data suggests as the integrity and currency of information is critical to support the core business processes of personnel in this organisation. In addition, the increased self-reliance empowers staff to be decision-makers themselves and is consistent with the trend in service organisations to mobilise resources to assist the front line. In this organisation, where many services are provided on a 24 hour basis, another important issue is the availability of information outside office hours.

Changes in productivity were assessed in terms of changes in the time taken to retrieve or access information, and to act upon or process that information. While the technology impact is likely to be great because of the on-line facility, the reengineering component of the project also resulted in elimination of many unnecessary steps, the automation of repetitive tasks such as data entry of personnel information and cost centre charges, and elimination of rework, achieved by quality control of data entry. Together, the two factors, technology and reengineering have led to remarkable improvements. Prior to implementation, participants in the project indicated a 98% need for rework in process one and a 90% error rating in process two, both of which were minimised in the project. Other productivity indicators that were not directly assessed include the elimination of paperwork; elimination of the many needs for telephone, mail, fax, courier and printing services; substantial improvement in overall elapsed time to complete processes; and, as above, a decreased dependency on other staff for information.

Table I Benefits of the change to the new processes

Benefits	Processes			
	1 Enrolment in staff development course	2 Employment agreements: creation and completion	3 Access to published job opportunities	4 Access to policy and standards manual
Accessibility of information				
Percentage decrease in reference to others for information	37%	40%	50%*	NA**
Percentage of respondents indicating 'frequent' or 'constant' use of electronic system	63%	49%	59%	41%
Productivity				
Percentage of respondents indicating a 75% or greater reduction in time required for accessing information	61%	59%	51%	54%
Percentage of respondents indicating a 75% or greater reduction in time required for taking action on information	54%	66%	NA	NA
Customer satisfaction				
Percentage of respondents indicating satisfaction with the new system	94%	96%	94%	NA
Percentage of respondents indicating preference for the reengineered, electronic system	95%	93%	92%	94%

* The 50% value represents an overall decrease, reference to supervisors was noted to decrease by 80%.

** Prior to project 72% indicated 'not accessible' and this reduced to 41% after the project.

Some indicators of customer satisfaction levels and preferences with respect to the technology based and paper based systems are also indicated in Table 1. There is very strong evidence for further use of the technology based system even though some initial problems with the systems and access to support were noted. Specific comments that indicated increased satisfaction with the new systems were provided for each type of process. For example, for enrolments in staff development (process 1), the ability to track the status of the enrolment by the applicant, and the ability of the manager to generate reports for individual training histories or group activities were both seen as significant improvements.

In relation to the creation of employment agreements (process 2), there were two major areas of satisfaction. The first was the certainty of respondents that the information they were using was current and therefore able to be processed immediately. The organisation had had eight employment relations updates in the previous two years and each update required 64 disks to be circulated in this one region. The second issue with respect to the creation of employment agreements, was the apparent simplifying of the process of generating the appropriate document. At the time of the survey, the organisation was using eight different contracts with eight different attachments, three different schedules and five instruction schedules. By having some straightforward data input at the beginning of the process, a great deal of this information could be bypassed for generating any one interactive agreement.

While impressive benefits were acknowledged, the open-ended questions at the completion of the survey indicated a number of issues that were causing concern amongst participants. Only two of these issues related to the technology, with concerns focussed on accepting a different means of authorisation and the

confidentiality of information entered on the net, especially with multiple staff using one terminal in a field setting. Most of the other issues were related to business priorities and organisational change, a finding that supports the need to integrate strategies (Roos and Bruss, 1994). Specific examples include the need for more training and greater opportunity to practice, problems in consistently drawing on limited resources, and a feeling that the change was being driven too quickly, in order to demonstrate its benefits. Despite these issues, the respondents' preferences for and comprehensive use of the electronic system (Table I) suggest overwhelming support for the changed processes.

Outcomes with respect to wider implementation

When the qualitative research was performed at the completion of an 18 month period after the trial, it was clear that despite well documented savings, and acceptance and action on recommendations that dealt with policy and planning components, wider implementation of reengineered and technology based processes had not been realised. Discussion and analysis of the reasons for this lack of progress appear to fall into two broad areas, organisational inertia and structures, and lack of alignment of the changes with business imperatives. These are discussed in turn.

Consistent with other documented change initiatives, this organisation has had difficulty implementing enterprise-level changes. One reason suggested for this is that only senior staff were trained in reengineering and therefore it was felt that there was little or no ownership of change at lower levels. Further, when certain groups attempted to implement changes, they were obliged to continually return to their source and demonstrate that there was authority to do things differently. Related to this tendency to return to the status quo, there was evidence of an inability of some managers to change, and a lack of supportive action-oriented leadership in some areas. One manager noted "The attitude seems to be just to wait - we will outlast it".

A major issue centred on the difficulties of coordinating implementation in a large and complex organisation, composed of a number of different business units. A great deal of organisational time and energy was devoted to analysing and redesigning processes and making estimates of projected savings. However, debate arose about whether savings were 'real' and where they would come from. The managers across business units were able to reengineer processes and demonstrate the benefits, but when told that projected savings would be taken, agreement could not be reached about where budget allocations would change. Thus, it appears that this organisation, because of its structure, has been able to achieve JIT where improvement initiatives can be managed within regions or business units, but not BPR where more comprehensive implementation requires people to move outside their own function or identifiable group. This reinforces the view of Hammer and Champy (1994) who suggest that reengineering requires a different approach to change management when compared to quality initiatives. Further, in spite of dramatic projected savings, the strategic coordination does not appear to be sufficiently strong to realise wide implementation in this case, a characteristic IT failure that has been reported elsewhere (Roos and Bruss, 1994). An interesting question is whether or not a well developed macro change management plan to support implementation may have preempted such issues and whether senior management may have been able to negotiate solutions.

Some managers believe that the inertia associated with wider adoption is due to the fact that there has been no compulsion to get involved and the IT group in the organisation have been driving the change. "The business end have no knowledge of the product or its capabilities, and no responsibility to run it". The IT group appears to work outside the realities of the business groups, or the corporate Business Improvement Branch. In the past, "IT have driven IT directions, not business directions", and IT staff, who are predominantly on short term contracts, are isolated physically and culturally within the organisation. Another factor is the control of IT over the technology networks in the organisation, a control that is apparently not rescinded lightly.

Also related to the slow progress of adoption of the IT initiative, is the overlay of what are more pressing needs, such as staff and other resource reductions, and political decisions which tend to push new initiatives down the list of priorities and decrease the confidence and ability of the initiators to press forward. Also, at

present, the organisation is not using technological change as a key performance indicator. Quality initiatives are often linked to strategic plans but improvements via BPR and IT do not appear to get the same impetus. Finally, one of the current business imperatives is outsourcing which has generated conflict about whether IT initiatives should be implemented. These outcomes, resulting from problems associated with integrating IT, IT personnel and business objectives, and the need for IT to be an enabler of change, rather than a driver, are well documented elsewhere (Gadd and Oakland, 1996; Jackson and Humble, 1994; Whyte and Bytheway, 1996) and are again supported in this study.

Management issues in ensuring and sustaining the benefits of changes

At the conclusion of the 18 month period, exploration of the extent to which changes were being sustained in the initiating region was pursued. Positive outcomes, both in terms of use of the new systems and the culture of the employees who had been involved in the process, were indicated. In particular, one manager claimed that the productivity increases occur in a wide variety of processes because the staff now look at every process and say "Why do we do this?"; "How can we improve this?"; or "What is the waste here?". Staff are also more confident in exploring other applications of technology. That is, overall, there has been a significant cultural change as a result of BPR approaches and success with the new processes and systems. Also related to the success, is the changed attitude of staff to themselves as a region. "There is a sense of pride. They are no longer scared of being in full view; they know that if they can develop an initiative and demonstrate savings, it will be supported. This has been very motivational for staff and has positive cultural spin-offs." The cultural change in the region is therefore different to that in the wider organisation and the earlier culture of resistance has not been perpetuated in spite of the technology. This contradicts the view of Kimble and McLoughlin (1995) and it appears to support the view of Johansson *et al.* (1993) that quality based initiatives, such as JIT, are necessary prior to the more radical changes associated with BPR.

While the employees interviewed generally indicated very positive outcomes, they also suggested that there have been some significant problems appear some time after implementation of the changes. For example, there was an occurrence of (what is believed to be deliberate) sabotage of the system and files of the project coordinator, which required external investigation. Some staff appeared to resent the high profile of people leading the project and attempted to disclose fraudulent activities by underhand pursuit of evidence of inappropriate expense claims. These events did not occur until some 12 months after the commencement of the project and have "taken about another 9-10 months to settle", eventually doing so because no evidence of unauthorised expenditure could be found, and there has been a shift from personal to group accolades for the achievements. This finding supports the views expressed in the literature that organisational impacts take some time to emerge (Swatman, 1994) and that they evolve over time (Kimble and McLoughlin, 1995).

CONCLUSION

In this study, benefits and issues associated with applying JIT and BPR techniques to processes and using IT as a vehicle for change, in a large public sector service organisation, have been pursued. The organisation covers a diverse range of functions across geographically dispersed areas, and its information requirements are complex. Information is essential for employees to perform core business processes and such information must be current and held in confidence. The improvements in business processes via reengineering and introduction of on-line facilities have produced dramatic returns but have also highlighted the need for diligent management of change.

A pilot project in one region demonstrated that significant increases in accessibility of information, productivity of employees, and enhanced customer satisfaction could be achieved by applying the JIT philosophy of waste reduction to processes and delivering them electronically. The benefits were reflected by improved retrieval, response and throughput times; decreased reliance on other personnel; and improvements in the accuracy and quality of work. Management also indicated important intangible benefits related to cultural change, in particular, enhanced critical thinking skills and motivation of staff. However, there were organisational costs to be borne to win the acceptance and involvement of employees, and these costs emerged in different forms over a two year period. Significant management issues that emerge include

the need for: staff who perform the work to have ownership of changes; attention to be given to modifying entrenched attitudes to authorisation; and recognition of group achievements to ensure sustainability.

When the application of BPR to the wider organisation is considered, the outcomes are in sharp contrast. Significant benefits have not been realised. Recommendations related to approval and planning have been implemented and some training has occurred. However, the absence of a coordinated and appropriately authorised macro-level plan, and a preoccupation with budgetary gain in business units have prevented potential productivity gains from being made. In essence, the organisation has not been able to implement reengineering because it has not been able to apply the techniques throughout all levels and across all functions. That is, no corporate mechanism was provided to move forward holistically and to apply and integrate business objectives, IT, and change management. The study supports previous work that suggests that quality initiatives may present a pathway to reengineering, but that reengineering requires a different approach to change management. In particular, that little progress will be made when organisations persistently drive an inward focus on efficiency in their business units, resulting in conflict with an outward focus on the overall effectiveness of the service.

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