

# FRAMEWORK OF BUSINESS PROCESS RE-ENGINEERING SUCCESS AND FAILURE FACTORS

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## ABSTRACT

*The purpose of the paper is to take a comprehensive look at Business Process Re-engineering (BPR), which is a new management paradigm that examine the flow of activities and information that make up the key business processes in an organization with a view to simplify processes, to achieve firm's operational desired goals of cost and cycle time reduction, speed, customer satisfaction and or improvement in quality and flexibility (Morrow and Hazel 1992). It focuses exclusively on improving the internal process operations to pull off dramatic improvement in corporate performance objectives (Short and Venkatraman 1992). BPR has attracted the attention of so many professionals, academicians and practitioner. The subject matter becomes a hot jingle word in management and information system disciplines. This paper attempts to discuss the differences and similarities between BPR and other management tools of approach, re-engineering success factors, reasons for BPR failures and explanations on the four keywords in BPR definition: fundamental, radical, dramatic, and process. The discussion is based on an extensive literature analysis on the subject matter.*

**Keywords:** Business process re-engineering; Processes performance; Quality and Time based movement; Re-engineering success and failure factors; Banking

## INTRODUCTION

As the world becomes technologically advanced coupled with the rise in global competitive market, banks are left with no choice but to improve their operational processes performance. The global economic meltdown, have necessitated for banks to enhance their professional capability by engaging in process change and reengineering that bring about efficiency, accuracy and intensifying new ways in order to enhance banking services and to meet customer needs. Banks tend to improve on processes performance by utilising information technology to reduce cost and cycle time, eliminate mistakes, affect cost control, improve human relations and above all speed up product development in order to satisfy customer needs. To meet these challenges banking services such as remittances, credit evaluation, customer service tellering and cash transactions processes should be reviewed, redesigned, and reengineered to enhance efficiency and effectiveness for customer value. The advocates of BPR claimed that, if BPR is rightly and correctly implemented, organisation would achieve quantum leap of improvement in cost reduction, speed, productivity and profitability (Hammer 1993). Business process Reengineering (BPR) is new management approach introduced by Hammer (1990) and Davenport and Short (1990) that would enable organisation to manage their business profitably in the 1990's and beyond. The progressive globalisation of financial markets is requiring major adaptation on part of market participants to move beyond national level competition and achieve international and global competitiveness. The entire banking industry is now focusing on major performance enhancements and gains in domestic market share as a springboard to successful international expansion. Banks are concentrating their efforts on market segments offering the potential for growth and rising profits, resulting in a reorientation within the overall financial service sector. New type of banks, including distribution, processing and portfolio banks, are evolving as the market consolidates due to merger and acquisitions. This dual trend toward specialisation and consolidation is forging banks that will be able to compete in international and global markets.

Operational processes performance enhancement efforts would aim at a complete realignment of internal and inter-organizational processes. In contrast to the trend in the recent years, the focus is no longer on cost containment alone, but rather on simultaneously improving service to

customers. Not only processes to become efficient, they must be made more customers friendly as well. Attempts are being made to transfer approaches that have proven effective in other industries, particularly manufacturing to the financial sector. According to Al-Mashari, Irani and Zairi (2001) the average success rate achievement of implementing BPR in advanced developed countries, Multi National Corporation was 55 percent, being 61 percent achieved in USA and 49 percent in Europe. Majority of studies in BPR have focused on the importance of the various factors for successful implementation in manufacturing industry, while relatively few studies have been conducted in banking industry. It is therefore risky to generalise the BPR success rate, because the evaluation is subjective as cross national differences (such as cultural belief, norms and values) may exist. Reengineering is a painful process because the whole set of values and belief in the enterprises are being challenged (Champy 1995). Hammer and Stanton (1995) said top managers did not reengineer but claimed to have done it. This dilemma frequently happened in some banks in Nigeria; some managers claimed to agree with the ideas and concept of BPR but see its implementation and practices as troublesome. Therefore there is doubt whether the kind of radical process improvement can rightly be carried out in the Nigerian banking environment. Hence, this paper would explore the benefits associated with reengineering factors, as it affects the operations and success of banking performance in Nigeria. There is no doubt that reengineering in the present day globalized economy is not only a necessity but is important as the prerequisite for success of any financial institutions.

## PROCESS REENGINEERING

Business process reengineering is referred as core process redesign; new industrial engineering or working smarter. The paper will provide a definition of BPR by Hammer and Champy (1993), framework, process, and success and failure factors. Various scholars and experts have defined BPR in different ways with different emphases. The BPR concept was developed by Hammer and Champy (1993) in a book written by them called: *Re-engineering the Corporation*. They provided the following definition: ***“Reengineering is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical quantum leap, contemporary measures of performance, such as cost, quality, service, and speed.”*** This definition comprises four keywords: fundamental, radical, and dramatic and processes.

BPR seek to split away from old and current processes to come up with a new ways of doing thing/task, organizing peoples and making use of IT systems so that the resulting processes would better support the goals of the organization. *The basic operation of a business is the first and important priorities to reengineering. The essential question of how an organisation should be run should be asked by the business owners, the answers to these questions always lead to the understanding of the fundamental operations of the company and rationale behind any existing assumption. Re-engineering start with no assumption and companies that implement reengineering must guards against such assumptions, take nothing for granted and must determine what a company needs and how effectively done.*

*Radical redesigning is the second keyword to reengineering which means abandoning all existing arrangement and methods and creating completely new contemporary system of achieving task. This means reengineering is all about beginning with a new processes with no assumption or modification therefore business processes are re-innovated.*

*The third keyword in BPR concept is dramatic improvement, reengineering which involves achieving greater performance unlike making marginal or incremental improvement. Marginal improvement requires re-adjustment while dramatic improvement demands doing away with existing process and replacing it with something new and contemporary.*

*The forth keyword is definition of BPR is Processes. This is the paramount concept in reengineering. The division of labour approach which is wholly applied in classic business structure should be transformed to process based approach to ensure effectiveness and*

*efficiency of processes.* Processes are complex and largely interdependent systems, in which minor changes in parameters (e.g. capacity) may significantly impact overall process performance. This interdependence and the need for ongoing adaptation to changing market and competitive conditions require an effective system of controls. Operational control systems involve a quantitative presentation of the quo versus a given target, as well as instruments for analysis of factors influence the complex system refer to as processes. The core business processes of an organisation according to Tinnila (1995) and Hammer (1996) are: customer acquisition and service, product development, and order fulfilment. These processes are extending over different functions and embed suppliers as well as customers. Hence, one of the characteristics of a business process is that it begins and ends outside the organisation (Hammer, 1996: 9-12), and has clear interfaces towards other processes.

According to Hammer & Champy (1993) one of the main criteria for reengineering success is to get all the way around the business system diamond (Hammer & Champy, 1993). The business system diamond identifies the relationship between business processes, jobs and structures, management and measurement systems, and values and beliefs. BPR is a method of improving the operational performance of an organization. The objective is to find a new ways to organized people and redesign information technology so that the processes support the organizational goals. When restructuring the business process, the content of jobs and of organisational structures changes for all employees. Changing jobs and structures require changes in management principles and performance measurement systems. These new management principles and performance measurement systems induce change in values and beliefs, which in turn enable the new business processes. Consequently, reengineering is not complete until all elements of the business system diamond have been changed and aligned as shown in figure 1.

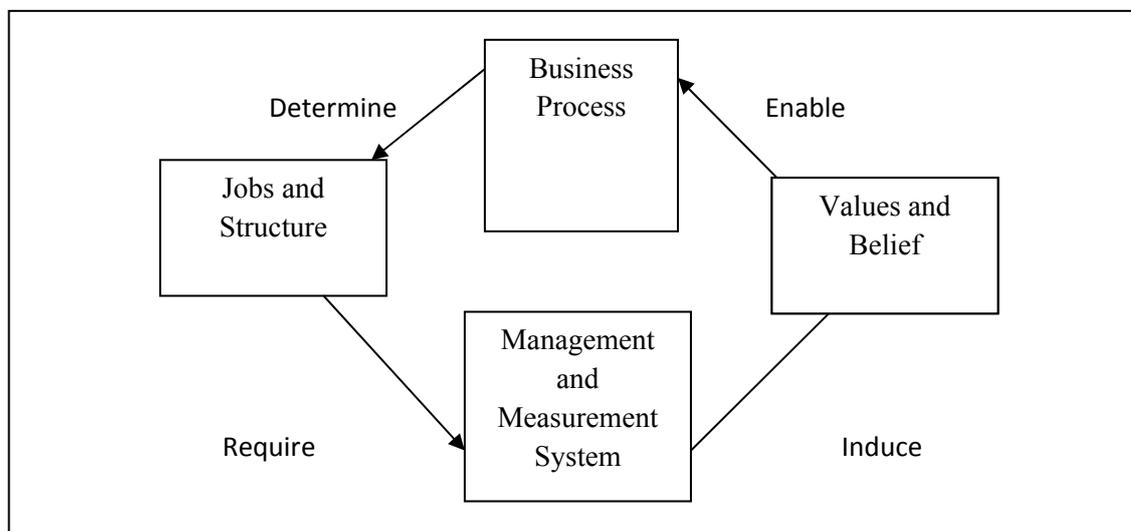


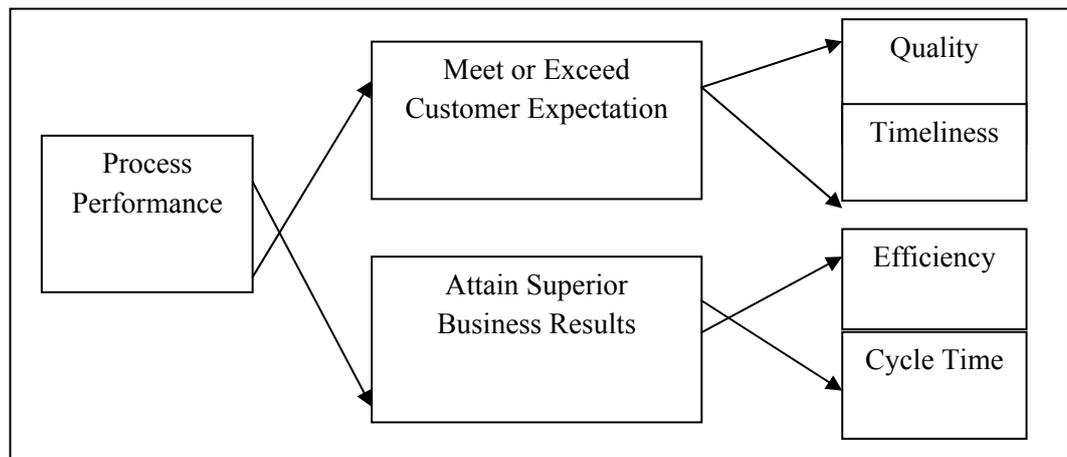
Figure 1: The Business System diamond: (Hammer and Champy 1993)

**The business system diamond would be the framework reference model developed by Hammer and Champy (1993). It summarised the changes that occur when company re-engineers its business processes, jobs and structure certainly change, as business processes ultimately changes practically everything about the company, because people, jobs, managers and values are linked together. It is called the four points of business system diamond as shown above.** The top point on the diamond is the company's business processes (method of the ways company's work is done); the second is its jobs and structure; the third, its management and measurement systems; and the fourth, its organisational culture (employees value and believe).

The linkages between each point as diagrammatically drawn above are very important to the success of the reengineering process, while the top point of the business system diamond is business process it determines the second point job and structure. The ways in which work is performed determine the nature of people's task and how the people who perform these tasks are grouped together. Likewise, people who perform multidimensional jobs are organised into teams. They are recruited, evaluated, and compensated by means of appropriate management systems. In other words, jobs and structures are determined by the process designs. This led us to the third point on the diamond.

The kind of management systems a company should employed, how people are paid, the measure by which their performance is evaluated. The fourth stage on diamond is the organisational culture that shape the employees values and beliefs. Finally, the reigning values and beliefs in an organisation must support performance of its process designs. This brings us back to the top of the diamond. Once again, we say that in reengineering it is not sufficient to redesign processes alone. All the four points on the business system diamond must fit together or the company will be flawed and misshapen.

Discussion of process management today revolves mainly around challenges to technical processes support, the integration of technical process step into operational systems and quality of technical control functions in an information technology context. Process performance controls are viewed in the overall context of business performance metrics, quantitative reporting of process performance being seen as an integral part thereof (Siebert 1998; Sandt 2004). The diagram of the basic types of process measurement in figure 2, below provides an overview of the four (4) general categories of key performance indicators (KPIs), or metric. Quality and timeliness tend to be external measures usually determine by reference to the customer of the process. Efficiency and cycle time tend to be internal measures and are pursued to assure that the process does what it does in the most cost-efficient possible manner.



**Figure 2: Basic type of process measurement**

Quality – measure the conformance or non conformance (defects) to requirements or expected performance

Timeliness – measure the success in meeting a customer commitment

Efficiency – measure the output that a customer request and delivery of the product or service to the customer.

Cycle-time – measure the time between a customer – request and delivery of the product or services to the customer.

## **BUSINESS PROCESS REENGINEERING VS OTHER PROCESS MOVEMENT**

The world wide success of Japanese companies led to the emergence of Japanese principles in Western management literature during the 1980s. These developments together with value chain analysis (Porter 1980, 1985) gradually brought horizontal business processes back to the focus of management attention (Juga 1996, Hannus 1993). The total quality management (TQM) was a horizontal process cutting across the boundaries separating organizational unit's in order to leverage quality in companies products and activities (Ghoshal and Bertlett 1995, 1989). More recent notions such as lean management (Womack et al. 1990) and time based competition and management (Stalk and Hout, 1990), also contain the same basic ideas. These two (2) school of thoughts i.e. the quality movement (TQM) and time based movement (JIT) were argued to have form a sort of synthesis, revolving around such concept as lean activity based management and finally business process reengineering (BPR) as shown in figure 3 diagram below

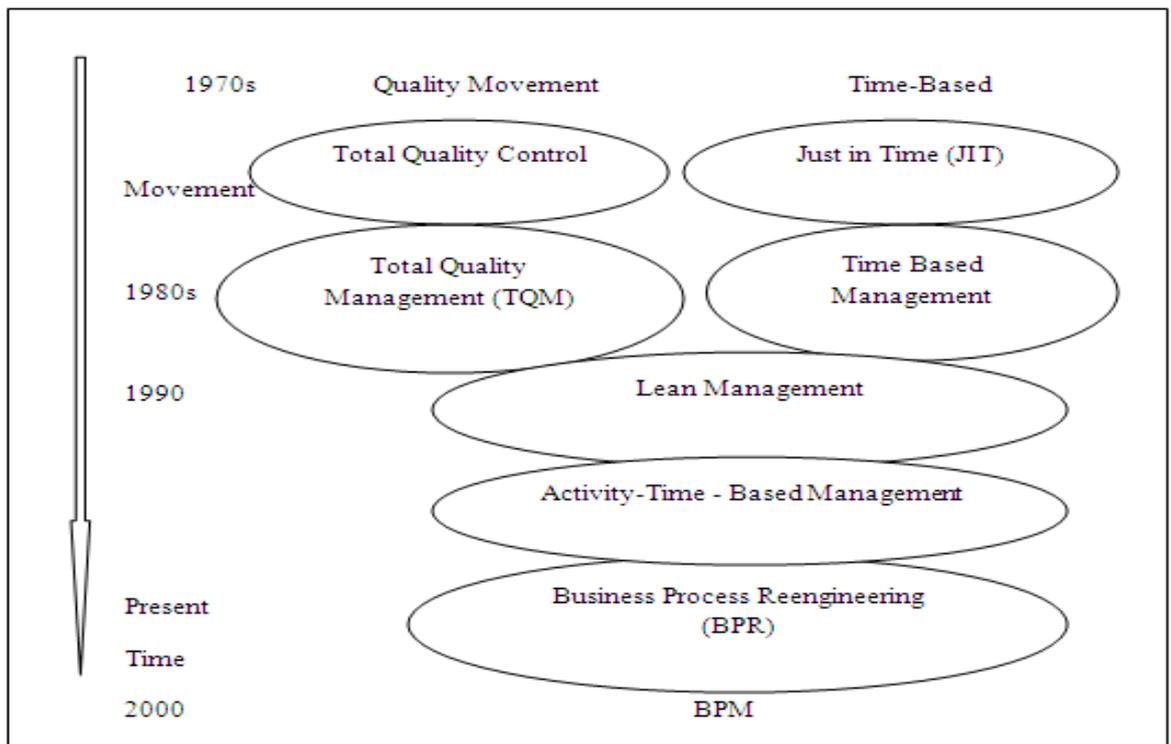


Figure 3: Trend in Quality and Time based movement

*Davenport (1990) pointed out that major difference between BPR and other organizational approaches especially the continuous improvement or TQM movement where he states: "Today's organization must seek not fractional but multiplicative level of improvement. Johnson and Swigart (1994) provide an explanation of BPR relative to other process oriented views, such as TQM, and Just in Time (JIT) thus: "Business Process Reengineering although a closed relative seeks radical rather than merely continuous improvement. It accelerated the effect of JIT and TQM to make process orientation a strategic means and capabilities of the organisation. BPR concentrates on business processes and uses the specific techniques within JIT and TQM concepts as enabler, while enlarging the process vision"*

*The objective of restructuring is to reduce business capacity to meet lower cost, address poor financial performance by eliminating unprofitable businesses or personnel (Makridakis 1996) while downsizing entails reduction in number of personnel of an organization (Green and Wayhan 1996; Chief Executive 1996). However, BPR efforts attempt to change the way work is done, downsizing does not include re-invention, which sets target for the disengagement of manpower. In reorganization project, the organisational structure is altered by either de-layering several levels of middle management or by acquiring or disposing of corporate assets (Green and Wayhan 1996). In de-layering or de-levelling, the aim is to reduce the number of*

*layers in the organization, resulting in flatter organizational structure with few middle management staff (Makridakis 1996; People Management 1997).*

TQM and BPR share common features, such as: the principle of processes (Wells et al. 1993; Green and Wayhan1996; Zairi and Sinclair, 1995), the need for organisational and cultural change (Davenport, 1993b; Gulden and Reck1992; Wells et al. 1993; Zairi and Sinclair, 1995), the use of benchmarking (Zairi and Sinclair, 1995), the focus on customer needs (Wells et al. 1993; Green and Wayhan1996), the importance of process measurement (Wells et al.1993; Zairi and Sinclair, 1995; Davenport, 1993b; Gulden and Reck 1992), and their aim of improving business performance for competitive gains (Davenport, 1993b; Gulden and Reck1992; Zairi and Sinclair, 1995). Hammer (1990) suggested that they should both put in under the process management, while authors such as Chang (1994); Furey (1993); Taylor (1993) described programmes that integrate TQM and BPR as management tools. Hammer (1991) explained the series of sequential performance improvements using the two techniques and warned against the concurrent usage of the two approaches.

However, the two approaches are different in many respects. Firstly, TQM is focuses on incremental, evolutionary and continuous in nature (Kaizen) while, BPR is, in contrast, radical, innovative, revolutionary and a one-time approach (Gulden and Reck, 1992; Wells et al.1993; Zairi and Sinclair 1995; Green and Wayhan 1996; Clemmer 1994; Davenport 1993; Hammer 1990). Secondly, TQM addresses tight processes regularly within departments; BPR, on the other hand, is wider in scope and addresses one or more processes that cross multiple functions (Gulden and Reck, 1992; Wells et al.1993). Thirdly, while quality is considered necessary in BPR projects, benefits such as cost and cycle-time reduction are among the major targets (Wells et al.1993; Clemmer 1994; Kelada 1994). Finally, IT has a major role in BPR, while in TQM the role of I T is less important (Gulden and Reck, 1992; Wells et al.1993).

### **RE-ENGINEERING SUCCESS FACTORS IN BANKS**

A bank is an institution which deals in money and credit. It accepts deposit from public, lends money to those who need help in the remittance of money from one place to another and performs auxiliary system means the accepting for the purpose of lending or investment, deposits of money from public, repayable on demand or otherwise, and withdrawal by cheque, draft, order or otherwise. The general utility functions of a bank includes: issuing credit instrument such as letter of credit, travellers cheques to customer, people can transfer fund through these modes without carrying currency notes with them. Others are underwriting capital issues (shares and debentures), safe custody of valuables, advice and information, ATM and Credit cards. The implementation of BPR in banks claims fantastic outcome of performance improvement and is able to provide an enhance results. Several banks achieved high cost reductions; enhance profits, effective quality and productivity, efficient response to market, and good customer service. Factors that resulted to the successful results for reengineering projects (www.prosci.com) include:

1. Strong, consistent, commitment and sponsorship of top management
2. Strategic Alignment of business objectives with firm's strategic direction
3. Specific commitment to focus on customers and performance measurement objectives
4. Effective methodology that includes a vision process
5. Effective Change Management and cultural transformation
6. Management ownership and accountability
7. BPR Team with in-depth knowledge of re-engineering

Table 1 below summarised previous studies on BPR undertaken in banking industry are as follows.

Table 1: Summary of previous studies on CSF of BPR

Authors	Title/Relationship	Findings	Highlight
Currie and Willcocks (1996)	The New Columbus project at Bank of Scotland: the implementation of large-scale business process reengineering	The research finding raises a number of complex issues and provides some answers about the degree and circumstances whereby reengineering can produce the wide ranging organizational, managerial and technical changes especially by those who advocate radical, or revolutionary change.	The research uncovered a wide range of practical difficulties, many of which are likely to be experienced by other organizations attempting large-scale I.T enabled reengineering. A big question facing the bank is the fast growing competition from the existing and new entrants into financial service market.
Brandon, Bransford, Guimaraes and Tor (1999)	Empirically assessing the impact of BPR on banking firms	In general results indicate that organizations are not emphasizing some of the most important goals and objectives recommended in BPR literatures.	The study has some limitation which should be viewed as opportunities for future research. The absence of any established BPR theory capable of producing results significant for business practice has led to model based on newly developed constructs.
Chen 1999	Critical success factors for various strategies in banking industry	The research finding derived four critical success factors in the banking industry which can reflect four business goals for commercial bank manager. They are: 1) ability of bank operation management, 2) ability of bank marketing, 3) ability of developing bank trademarks, 4) ability of financial market management.	The CSFs explain commercial bank success clearly and practical implication of these CSFs can provide useful managerial direction in hiring, training, evaluation and reward system
Shin and Jemella (2002)	BPR and Performance improvement – The case of Chase Manhattan Bank.	The study provides guidelines for BPR projects in financial institutions with similar organizational context. This study improves our understanding of BPR by describing and analyzing the major phases and associated activities conducted in reengineering. According to Davidson (1993) successful reengineering efforts ultimately lead to business transformation. New product, services and customer services appear in the form of improved information flows.	As seen in Chase BPR projects such as e-fund disbursement cards and service charge reengineering, BPR efforts produced new products and services in addition to dramatic increase in revenue and operating savings.

Terziovski, Fitzpatrick and O'Neill (2003)	Successful predictors of BPR in financial services	<p>The finding revealed that organization is more likely to achieve greater profitability if reengineering is implemented in a proactive manner as part of organization business strategy. Organizations that implement BPR reactively as a quick fix do not achieve significant performance outcomes.</p> <p>There is no apparent relationship between increase use of I.T and cycle time reduction and focusing redesigned effort on core customer focused business processes.</p>	<p>BPR practices have significant and positive effect on profitability, cycle time reduction, customer satisfaction.</p> <p>However, I.T does not appear to be a best predictor of successful BPR. This confirms previous studies that I.T act as an enabler.</p>
Khong and Richardson (2003)	Business process reengineering in Malaysian banks and finance companies	<p>CSFs of BPR implementation have positive effects on banking in terms of customer service and business performance as follow:</p> <ul style="list-style-type: none"> <li>• Change management system and culture has positive effect on business performance of banks However, evidence indicated that it has no effect on customer service</li> <li>• Management of risk and BPR project management positively affect customer service, but do not have effect on business performance.</li> <li>• I.T infrastructure usage has positive effect on customer service but do not have effect on business performance.</li> <li>• Customer service management has positive effect on business performance of banks</li> <li>• Change of management system and culture, management of risk and BPR project management and I.T infrastructure usage are highly correlated</li> </ul>	<p>It is hoped further research in this area can be conducted. Some of more important investigation would be comparing the models with other foreign banks operating in Malaysia, testing the feasibility of the two models in industry other than banking, measuring customer satisfaction with CSFs of BPR implementations and testing the models in other countries.</p>
Cheng and Chiu (2008)	CSFs of BPR in the banking industry	<p>The study identified four (4) CSFs (management commitment, customer focus, use of I.T infrastructure and communication of change) which are different from those identified in the manufacturing industry.</p> <p>Project management and I.T infrastructure usage are two commonly found factors in</p>	<p>The limitation to the study is as follows: Firstly the data collected only perceptive information from banking personnel who possessed BPR related experience. Secondly the study covers only banking practitioners and was cross-sectional in</p>

		Manufacturing, which are less important in banking industry. The finding indicated customer focus is the only factor is significantly related to firm performance. This reflects the actual business-operating environment in Hong Kong. It was strongly recommended that confirmatory factor analysis should be conducted for any future studies.	design, it would be hard to generalize the result and apply them to all industries in Hong Kong and other places. Finally, respondent could be subjected to other sources of bias, such as pressure from top management that could have distorted the feedback.
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## **THE REASONS FOR BPR FAILURE**

Many organizations have implemented BPR projects. However, 70% by estimate of the organizations BPR project failed to achieve the objectives of their reengineering efforts (Hall, Rosenthal and Wade 1993; Hammer and Champy 1993). A survey of executives of Fortune 500 companies and large British companies by Price Waterhouse showed the partial achievement of the outcome by the organizations (Berman, 1994). The survey observed different reasons for the failure in a BPR effort were classified as a result of either lack of understanding of BPR or the inability to perform BPR.

### **The lack of understanding of BPR**

Two reported reasons of failures due to the lack of understanding of BPR are stated as follows:

1. Misinterpretation of BPR: - Many considered reengineering as a spontaneous, innovative effort instead of an engineering discipline; some may confuse reengineering with other improvement programs such as total-quality management (TQM) or restructuring; and some may confuse functions with processes (Millman, 1994).
2. Unrealistic expectation - many managers have a great expectation on BPR performance outcome (Millman, 1994). They targeted unachievable goals for the BPR projects (Manganelli, 1993). Unfortunately, at the end, the out come results do not meet the unrealistic goals; they conclude that the BPR project has failed. These unrealistic expectations reduce the commitment and confidence of management to BPR. Furthermore, there are unrealistic expectations of the greater achievement as the BPR concept is aims at dramatic improvements, the achievement should be conditioned upon realistic situations (Klein, 1994).

### **The inability to perform BPR**

Many BPR efforts failed due to the inability to perform BPR for a different kind of reasons. Some of the reported causes of failures attributed to the inability to perform BPR as follows:

1. Lack of an effective methodology – Reengineering requires a new way of thinking to break away from old system and to develop visions (Klein, 1994).
2. No clear concept of process – Reengineering calls for multi perspectives and creative thinking. People with in adequate exposure and misunderstanding of operational processes may not be able to adequately handle the reengineering techniques. This is true particularly with the capability to value evolving information technologies (Rai and Paper, 1994).
3. Wrong scope of process objectives - Some managers may target restructuring rather than reengineering process which is not a problem to operations, since downsizing process add value or result to a better situation after re-engineering.
4. An incorrect defined business objective results in reengineering process failure as the contribution of BPR would be reduced to negative (Mathews, 1995).

5. Non recognition of BPR benefit - The inability to realise any benefit or vision from the dramatic improvement of customer satisfaction and effective process operation (Rai and Paper, 1994).
6. Over dependence on information technology - many managers over-relied on information technology solutions. They forget to investigate into the business process and attempt instead to simply automate the ineffective process (Anonymous, 1994).
7. Opposition and lack commitment from top management - To achieve satisfactory results of BPR, it requires top management commitment (Bashein, 1994). A top management needs commitment in order to endorse the change and direct the changes of operations and culture (Klein, 1994).

In line with those causes of failures, it was found that, in many situations for BPR, the process and the benefits are poorly-defined.

### **BPR SUCCESS AND FAILURE**

The result of the survey by CSC index (1994) shows that the success rate of BPR is higher of 55.46%, this is supported by the study of Sockalingam and Doswell (1996) which revealed that only 6 percent of the BPR projects in Scotland failed, and in the USA it is 78 percent different view from Hall, Rosenthal and Wade (1993) that said the total estimate is up to 70 percent failure rate. The difference between studies in this regard refers to the views in measuring BPR success and the lack of a common ground on which BPR measures and application level are understood. Sockalingam and Doswell (1996) state that "it would be dangerous to conclude that BPR is a global success phenomenon. BPR performance assessment is naturally subjective, goals and targets set vary between organizations". This equally suggests that more research need to be done in the area of BPR measurement, so a common framework might be worth developing to suit various levels of BPR application in terms of business position and level of competition, strategic targets, cultural and organisational beliefs and values. BPR is a long-term programme of change, especially when it includes a strategic improvement effort; it is more likely that a longitudinal type of research will be most suitable for studying such a phenomenon. A research that designs its quantitative and qualitative samples to be heterogeneous, representing varying sectors, of cultural, approaches and management arrangement, should enable the outcome of more research findings.

### **SUMMARY/CONCLUSION**

In this paper, the presenter firstly explored the concept of BPR, the detailed explanations of the four key words for business process reengineering, the re-engineering success factors and reasons for failures. Dramatic changes in business environment throughout the 1990's forced organizations to examine outdated modes of work and develop new focused strategies based on new business models. BPR has been the most influential business management concept that emerged during 1990's. The concept was geared toward a clean slate and radical approach. Reengineering is not just a matter of fundamental and radical improvement in performance, but is also an approach to analyzing and transforming the nature of businesses.

In view of the evaluation associated to the future of BPR concepts and practice, it would be attracted for researchers to investigate how the concepts and practice of BPR are being integrated with other recently-emerging management approaches, like enterprise resource planning (ERP), business process management (BPM), learning organisation, and knowledge management. It is assumed that companies would begin to face the challenge of assimilating different management tools in a free approach. In addition, the area of electronic commerce (EC) is becoming known very rapidly. E-commerce applications would certainly request for some key business process change.

Therefore, it would be interesting for scholars and expert practitioner to investigate how the application of EC technologies, such as the Internet, would integrate with the principles of BPR. In addition, researchers and practitioners alike will need to develop suitable frame of references

to support the navigation through evaluating the scope and impact of BPR-IT related change initiatives

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