

AN ASSESSMENT OF BUSINESS PROCESS
REENGINEERING IMPLEMENTATION IN
DIRE DAWA UNIVERSITY

By Solomon Mokonnen

Thesis Submitted to Addis Ababa University Graduate School of
Education in Partial Fulfilment of the Requirements for the Degree of
Master of Arts in Leadership and Management in Education

ADDIS ABABA UNIVERSITY
LIBRARIES
P.O. BOX 1176
ADDIS ABABA ETHIOPIA

April 2011

Addis Ababa University
Graduate School of Education
Department of Educational Planning and Management

**An Assessment of Business Process Reengineering Implementation
in Dire Dawa University**

Solomon Mokonnen



Approved by Board of Examiners

Yekunoamlak Alemu (PHD) Yekunoamlak Alemu 30/05/2011

Chairman, Department
Graduate Committee

Signature

Date

Seiso Omer

Advisor

[Signature]

Signature

30/5/2011

Date

Hale Selassie Berhan

Examiner

[Signature]

Signature

30/05/11

Date

Acknowledgements

First of all, I would like to express my deepest gratitude to Dr-Jeilu Oumer, my thesis advisor, for his unreserved support and encouragement throughout the thesis work.

I would also want to express my heartfelt thanks to Dire Dawa University for allowing me to pursue my studies and Deder Secondary and Preparatory School, and Technique School for material support. Special thanks go to Melaku Masresha (Process owner) and Akalu Mesfin for giving valuable information and suggestions. Ato Girum Tibebu and Fikadu Niguse unreserved moral support and constant encouragement as well as the valuable suggestions they provided through out my study.

A word of thanks must also go to all Dire Dawa University personnel who cooperated in providing data, filling out questionnaire, availed themselves for an interview and provided very valuable information about the implementation of BPR.

Finally, my greatest appreciation is reserved for my wife Hiwot Alemayehu and my little baby Tebibu Solomon for their patience and supports my study in general and this thesis work in particular could not have been completed on time with out their patience, especially in those difficult times.

PRELIMINARIES	Page
Acknowledgments.....	i
Abstract.....	ii
Table of Contents.....	iv
Abbreviations.....	vii
List of Tables.....	viii

TABLE OF CONTENTS	Page
-------------------	------

CHAPTER ONE

1 The Problem and Its Approach	1
1.1 Background of the study	1
1.2 Statement of the Problem	3
1.3 Objectives of the Study	7
1.4 Significance of the Study	7
1.5 Limitation of the study.....	7
1.6 Delimitations of the Study	7
1.7 Definitions of Key Terms.....	7

CHAPTER TWO

2 REVEW OF RELATED LITRATURE.....	9
2.1 Business Process Re-engineering and Organizational Change.....	9
2.1.1 The concept.....	9
2.1.2 The Need for Reengineering.....	10
2.1.3 Organizational Change.....	12
2.2 Phases of Business Process Reengineering.....	13
2.2.1 Planning and Preparation of Business Process Reengineering	13
2.2.2 Understanding As Is Process.....	15
2.2.3 Design To-Be process.....	17
2.2.4 Implementation of Reengineered Process.....	19
2.2.4.1 Develop a Plan to Manage Implementation.....	20
2.2.4.2 Plan to Manage the Change Process.....	21

2.2.4.3 Pilot Testing.....	22
2.2.4.4 The Evaluation of BPR Implementation.....	23
2.3 Business Process Reengineering Success/Failure Factors.....	24
2.3.1 Business Process Reengineering success factors.....	24
2.3.1.1 Factors relating to change management systems and culture.....	25
2.3.1.2 Factors for Management Competency.....	27
2.3.1.3 Factors relating to Organizational Structure.....	28
2.3.1.4 Factors related to BPR Project Management.....	29
2.3.1.5 Factors related to IT infrastructure.....	30
2.3.2 Business Process Reengineering failure factors/Barriers.....	31
2.4 Benefits of Business Process Reengineering.....	33
2.5 Why BPR Initiated in Ethiopia?.....	34

CHAPTER THREE

3 Research Design and Methodology	38
3.1 Research Method	38
3.2 Data Source	38
3.3 Sample and Sampling Technique	38
3.4 Instruments of Data Collection	39
3.5 Procedures of Data Collection	41
3.6 Data Analysis	42

CHAPTER FOUR

4 Data Presentation, Analysis and Interpretation.....	43
4.1 Characteristics of respondents.....	43
4.2 Planning and Organizing for BPR.....	46
4.2.1 The Driving force/ pressure/reasons.....	46
4.2.2 Organizational readiness.....	48
4.3 Planning, Understanding the current process, and Redesign phase are the primary activity before embarking in BPR implementation.....	51
4.3.1 The analysis of Planning phases of BPR.....	51
4.3.2 The analysis of Understanding phases of BPR.....	52
4.3.3 The analysis of Redesigning phases of BPR.....	53

4.3.4 BPR project implementation.....	55
4.4 The Evaluation of BPR Implementation.....	57
4.5 Achievements or Benefits of Business Process Reengineering.....	59
4.6 Key Success Factors for BPR implementations.....	61
4.7 Challenges of BPR implementations.....	64
4.8 Strategies to over come the challenges of BPR implementations.....	67

CHAPTER FIVE

5 SUMMARY, CONCLUSIONS AND RECOMENDATIONS.....	70
5.1 Summary.....	70
5.2 Conclusions.....	75
5.3 Recommendations.....	77

Bibliography

Appendixes



Abbreviations

ABC-	Benefit-Cost Analysis
APR -	Annual Progress Reports
CEP-	Continuing Education Program
CIP-	Continuous Improvement Process
ESDP -	Education Sector Development Program
FDRE-	Federal Democratic Republic of Ethiopia
FGD-	Focus Group Discussions.
ICT-	Information and Communication Technology
MDG-	Millennium Development Goals
MOCB-	Ministry of Capacity Building
MoFED-	Ministry of Finance and Economic Development
PASDEP-	Plan for Accelerated and Sustained Development to End Poverty
TQM-	Total Quality Management

List of Tables

Table 1:	Sample.....	39
Table 2a:	Demographic and back ground respondents	44
Table 2b:	Respondents work experience	46
Table 3:	Initiators/forces/reasons of BPR.....	47
Table 4:	The readiness factors of BPR.....	49
Table 5:	Planning activities of BPR.....	51
Table 6:	Understanding activities of BPR.....	52
Table 7:	Designing activities of BPR.....	54
Table 8:	Implementation activities of BPR Phases	55
Table 9:	Implemented activities of BPR.....	56
Table 10:	The evaluation activities of BPR implementation.....	58
Table 11:	Achievement of BPR implementation.....	60
Table 12a:	Activities of key success factors.....	62
Table 12b:	Activities of key success factors.....	63
Table 13a:	Challenges of BPR implementation	65
Table 13b:	Challenges of BPR implementation	65
Table 14:	Some strategies of BPR implementations.....	68

ABSTRACT

The research objectives are to assess the extent of preparation made for Business Process Reengineering (BPR) Implementation, to identify the degree of Business Process Reengineering (BPR) Implementation, to investigate the achievement in Implementing Business Process Reengineering (BPR), to identify mechanisms/strategies that the University exercised during the implementation of business process reengineering. To attain these objectives the methodology employed were descriptive survey method and moreover, data were collected by means of Questionnaire (for top executives, BPR team leaders, process owners, and job performers); Interview (for Top executives, BPR team leaders) and Focus Group Discussion for the process owners. The finding of the study revealed that the preparation and planning for BPR implementation were some what good, , the strongest barriers were: Lack of knowledge about BPR, Fear of losing jobs by employees, Lack of commitment from top management, Employees resistance to change, Rapid change of external environment, Lack of resources (time, money, staff, etc.). The key success factors of BPR implementation were poor in the university. The implementation activities were some what done except necessary preparation for pilot testing, establishment of problem resolution process and Plan to manage the change process were poor or not well done. These activities were an effective and usually necessary tool for moving the organization successfully to full scale implementation. And also pilot testing was not conducted, the development of BPR communication program and message delivered and the assessment of communication effectiveness, the identification of potential implementation barriers and way overcoming them and the minimization of bureaucratic structure were poor in the University. The mechanisms/ strategies in place to alleviate challenges in BPR implementation the provision of adequate training, and separate from old way of doing work were poor in the university. In general, this implies that there is no radical change or dramatic change rather it is incremental. In order for change to be embraced, everyone must understood where the organization is today, why the organization needs to change, and where the organization needs to be in order to survive. Because BPR can potentially require significant changes throughout an organization, it must begin with a communications campaign to educate or training all those who will be impacted by this change. Communication to all levels of personnel must remain active from start to finish keeping everyone involved and working towards a common goal. Without a common understanding about what is happening, confusion and uncertainty about the future can result in resistance strong enough to stop any reengineering effort. BPR is most effective when everyone understands the need for change and works together to tear down old business systems and build new ones.

CHAPTER ONE

1. The Problems and Its Approach

1.1 Background of the Study

Ethiopia is now having a clear vision and commitment to eradicate poverty and achieve the status of a democratic, middle level income country with good governance and where social justice prevailed by 2020 E.C. To bring about the vision the road has been started and Ethiopia is in a promising sustainable economic growth. The secret behind this growth is nothing else, but the appropriate policies and strategies of the government. The Education and Training Policy developed in 1995 contains powerful strategies for the contribution of cumulative development of the country. One of these strategies is the Education Sector Development Program (ESDP), which focuses on expanding the capacity of the existing higher institutions and establishing new ones by maintaining the fair distribution throughout the country. This strategy will help to fill the gap between the growth and expansion of private and governmental organizations, industries and the scarcity of skilled manpower in different fields of study. For its accomplishment, the government is allocating a significant proportion of its annual budget to the education sector in general and higher education in particular.

The Government has placed high priority on capacity building as critical means of achieving poverty reduction. Higher education institutions are believed to contribute to PASDEP and the Millennium Development Goals (MDGs) as they can train professionals (doctors, nurses, teachers, administrators) who will oversee and implement poverty reduction programmes. In addition, they can develop capacities in science and technology that are required for the same purpose.

As noted in APR 2006, in 1997/98, the Government of Ethiopia initiated the Education Sector Development Program (ESDP). Currently, the program is in its third phase, spanning the period 2005/06 to 2009/10. The strategic concern under this program are improving the quality of education, increasing access to educational opportunities with enhanced equity, equality, and relevance. The achievements recorded under ESDP III for the year 2006/07 for each phase of the education system. With the construction of new universities; upgrading the existing ones and recognizing private sector participation, higher education intake capacity has significantly increased over the years. Expansion of higher education has got the highest priority in Ethiopia.

All Ethiopian Universities are currently using Business Process Re-Engineering (BPR) as a change management strategy to obtain improvements in service. The aim is to ensure that the Universities adapt to the changing demands being placed upon them, and hence contribute to the Government's effort in its development endeavour. A number of interrelated pressures have created the need for

change: expansion of higher education, changing student profile joining the higher learning institution, pressure from stakeholders, increased competition among higher learning institution, changes in the pedagogy of learning/teaching, increased competition for graduates and hence, increased orientation to the job market, Increased autonomy, increased demand for quality and accountability, the dynamism of Information and Communication Technology (ICT), and so on.

The business environment of the present day has become so complex that organisations are necessarily to be alert to respond to the new challenges and opportunities. This involves a continuous process of managing the change. The idea that the change is essential, desirable and constructive within the established pattern of organisation is realistic. The view that the change has the beginning and an end is no longer tenable in this continuum. Top management in its endeavour of reorienting the organisation must recognise the need and set the tone for a change.

This kind of change compels either innovation or improvement or both. In such an intricate situation many organisations tend to focus their attention in identifying innovations rather than improvement. However, the latter is considered to be more appropriate in accomplishing the task. With today's fast changing technology, intensified competition, and customers' increasing demands for better products and services, companies can no longer operate on theories of work fragmentation and specialization (Hammer and Champy, 1993).

By the end of 1980s and early 1990s, a new and innovative approach in management appeared with a new emphasis on process. This new approach was called business process re-engineering (BPR). BPR fundamentally differs from other management initiatives like TQM (Total Quality Management) in that the margin of improvement from BPR is much greater than improvement that results from TQM (Hammer and Champy, 1993). Recently, a new concept called Business Process Reengineering (BPR) has emerged as a conspicuous tool for restructuring the organisation. In fact, the process of reengineering not only fosters a favourable climate supportive of desirable change but also improves the organisations' probability of success.

Dire Dawa University is one of the recently inaugurated universities in Ethiopia, which is found in Dire Dawa, located in the eastern part of the country. Dire Dawa University has successfully established itself as a higher education institution between 1999 and 2001 E.C. In just its third year of operation, five faculties with a total of 28 departments facilitated by 275 academic staff and supported by 265 administrative staff have successfully delivered courses to students. Moreover, CEP (Continuing Education Program) and Summer In-Service programs have begun. At the beginning of the 2001 E.C, DDU took over the facilities of the Haramaya University Dire Dawa

Satellite Campus. In doing so, DDU gained some infrastructural capacities (dormitories, limited access to broadband internet service, library, computer lab, lecture halls, and dormitory buildings under construction, civil and electrical engineering workshops and associated materials).

Dire Dawa University, in spite of all the challenges associated with new universities, is actively contributing to the realization of multiple government policies and, in extension, working towards the development of Ethiopia. Recognizing the importance of technology in development as espoused in *Development, Technology, and Technology Capacity Building Direction* (MOE, 2008b) policy document Dire Dawa University seeks to produce qualified human power in sufficient number to contribute to the economic need, with an emphasis on capacity in technology.

There are also different higher education development initiatives and programs undertaken at national level including academic staff development, curriculum development and institutional transformation. It is particularly believed that DDU must take advantage of the strong government initiative and support to ensure institutional transformation by implementing Business Process Re-engineering (BPR). Numerous Ethiopian institutions/organizations have recently engaged in BPR with the goal of providing full quality services to their customers. DDU is a strong candidate to implement BPR as its functional units were established based on Ethiopia's older universities' structures and assumptions. It is essential that DDU complete and implement BPR in order to deliver quality education to triumph among competing institutions of higher education.

1.2 STATEMENT OF THE PROBLEM

Following the publication of fundamental concepts of BPR by (Hammer, 1990) and (Davenport and Short, 1990) many organization have reported dramatic benefits gained from the successful implementation of BPR. Company like Ford Motors CO, etc are all recognized as having successful implemented BPR. However, despite the significant growth of the BPR concept, not all organization embarking on BPR projects achieve their intended result.(Hammer and Champy ,1993) estimate that as many as 70% of the projects do not achieve the dramatic results they seek. BPR has a great potential for increasing productivity through reduced process time and cost, improved quality, and greater customer satisfaction, but it often requires a fundamental organizational change. As a result the implementation process is complex, and need to be checked against several success/failures factors to insure successful implementation, as well as to avoid implementation pitfalls. During the implementation phase especially, institution leaders must be in the forefront in deal with the social, psychological and political resistance to changing the way

work is done. Leaders must also recognize that their own roles and responsibilities may need to undergo change as well United States General Accounting Office (GAO, 1997).

Numerous academics and consultants agree that many of the so-called BPR failures were not real BPR programmes (Miers, 1994). The majority of these efforts were projects that gradually slipped down the priority list and eventually faded away, or were deliberately killed off before any change was implemented (Hammer and Champy, 1993; Miers 1994).

The most significant causes of these failures are believed to be: (1) lack of top management commitment and support; and (2) resistance to change by subordinates (Furey, 1993; Guha et al., 1993; Farrell, 1994; Hammer and Champy, 1993). Likewise, (McAdam, 1999) discussed the implementation of BPR within small and medium enterprises (SME). It is a general belief that small and medium businesses, with their limited resources, are not good candidates for BPR. However, due to the relative simplicity of such organizations, associated BPR risks may be minimal. Resources, market environment, leadership, flexibility and change orientation, structure, methodology, and measurement are believed to be critical success factor factors for SME (McAdam, 1999). Several authors identified priority lists of barriers/pitfalls to successful BPR (Panettieri, 1994; Hammer and Stanton, 1995; Mayer, 1998), they seem to agree that resistance to change, fear, lack of understanding and commitment, following inadequate BPR approach and culture are amongst the strongest obstacles to successful BPR.

BPR implementation requires transformational change and it takes an organization outside its current "rules of the game" (Dale, 1994). Rules of the game can be either explicit or implied that is they can be superficial manifestations of status buried deep within people's beliefs. BPR implementation therefore is bound to confront the beliefs and values of the organization, complex and prejudice interests of employees in particular senior management. This will lead to resistance resulting in failure of the BPR project. It is known that to ensure success one ought to adopt certain best practices and watch out for certain pitfalls.

Many organizations even use the term reengineering in order to undertake routine cost cutting measures such closing down non-profitable branches, reduce excess staff, change the organization structure etc. Other organizations are simply following the seemingly fashionable trend that other organizations are adopting without analyzing their internal and external business environments in order to justify a reengineering effort (Mayer, 1998). According to (Ligus 1993) claimed that a "30-35% reduction in the cost of sales; 75-80% reduction in delivery time; 60-80% reduction in inventories; 65-70% reduction in the cost of quality; and unpredictable but substantial increase in

market share”, were all possible through effective BPR. However, (Holland and Kumar ,1995) noted that 60–80% of BPR initiatives have been unsuccessful.

Few years after the downfall of the military government, the new Ethiopian government recognized the importance of improving the performance of service delivery and the creation of accountable and responsible civil service institutions that would support the development efforts in the country. And also several measures have been taken to survive for today’s competitive world. As soon as the current government came to power, it started rigorous reforms (first phase reforms from 1991 to 1995) in three fronts: Economic reform – from central planning to market economy, Political reform – federalism, and power and fiscal decentralization, Constitutional reform – enacting the Ethiopian constitution. And also The “Ministry of Capacity Building” with the mandate of undertaking reforms in all public institutions (esp. education and the civil service) was established.

Over time it was believed that an important condition to undertake the reforms was to implement BPR. The reason why the Ethiopian government adopted BPR is that the current system has to be completely changed and redesigned and BPR can do this job. Services delivered by the public institutions are characterized by Long time taking, Costly (high transaction cost) .incompetence (not up to the needs of customers),not responsive (many complaints, questions, comments etc from customers but no response), not dynamic (the world is changing but our public institutions are stagnant). People have choices when they buy products from private firms. However, government services are one (no choice). At the same time it is a person’s democratic right to get appropriate and satisfactory services from public institutions. As a result of the implementation of BPR, painful practices in each public office were identified, and many non-value adding works/positions are avoided. (Berihu Assefa , 2009). At the end of the day BPR enables a “one stop shop mechanism” – where customers get all public services in one place at low cost. So far BPR is implemented in public offices and publicly owned big institutions such as “the Ethiopian Telecommunication Corporation”, “The Ethiopian Power Corporation” and government banks.

Despite the achievement of reduction in cost and cycle time of service delivery of some public institutions, to a large extent the implementation of BPR did not produce the expected dramatic improvement in most of the institutions(MoCB,2007).The reasons mentioned for this unsatisfactory results were, inadequate technical know how of BPR due to insufficient training on the concept, low level of employee participation, and reluctance and suspicion of employee resistance to change, lack of top management commitment, dalliance and taking longer time than required and planned(FDRE, 2001).

Though, retraining of officials and BPR teams was conducted by different consultants on the concept of BPR and key areas of BPR problems were not alleviated. For instance, problem of process identification which had taken longer time required. lack of timely communication have created fear on employees, and problem of change management are still unsolved problems (MoCB, 2006). Effort has been made to enhance the implementation of BPR at Federal, Regional, Zone and Woreda level. But this study will be conducted to assess the implementation of BPR at university level.

Although so many training and workshop were arranged in order to support BPR planning and implementation in the Dire Dawa University, I was observed that most of the personnel of the university have no clear understanding about job specification and job description under their business processes, core processes, and supportive process, there is no radical changes in doing works and there is no such change in measurement systems. As a result there is no clear picture on the BPR implementation plane in the university and the impact on the over all achievement of organizational objectives so, it is timely and important to assess the implementation of BPR in Dire Dawa University to examine whether or not newly introduced BPR programs is being implemented as intended and the problem encountered. And also the study tries to assess the status of BPR implementation as well as finding the achievements and challenges of the program in the university. The main theme of the study therefore, revolves around: How can reengineered process be influenced in away that it helps customers/stake holders satisfy more and, process owners and job performers perform constructively?. What elements of practice have to be in place for implementing Business Process Reengineering?

Therefore, this paper addressed the following research questions

1. To what extent preparation were made for BPR and implemented in Dire Dawa University?
2. What are the barriers/challenges and the key success factors in Implementing Business Process Reengineering in Dire Dawa University?
3. What mechanisms have put in place to facilitate the implementation of BPR in the Faculties?
4. What are the achievements or benefits of Business Process Reengineering in Implementing BPR in Dire Dawa University?

1.3 OBJECTIVE OF THE STUDY

The general objective of the study is to assess business process reengineering implementation in Dire Dawa University. More specifically: to assess the extent of preparation made for Business Process Reengineering (BPR) Implementation, to identify the degree of Business Process Reengineering (BPR) Implementation, to investigate the achievement in Implementing Business Process Reengineering (BPR) and to identify mechanisms/strategies that the University exercised during the implementation of business process reengineering.

1.4 SIGNIFICANCE OF THE STUDY

Accordingly the result of the study may have the following significances: It may enable the university to gain valuable information on the actual implementation of Business Process Reengineering (BPR). It may create awareness among the concerned bodies on what is going on and help to take corrective action and give them an insight about the new world of work, It may serve as a lesson for other institution/organization who are practicing or want to practice in the future and It may also initiate, encourage and serve as stepping stone for further and in-depth studies.

1.5 Delimitation of the study

The scope of the study is delimited to assess the organization's readiness for change, preparation, the design and the implementation of BPR and the general implementation practices of the core process. In addition, it assesses the status of achievement and identifies the challenges of BPR implementation in Dire Dawa University since 2009-2010 in particular.

1.6 Definition of key terms

Benchmarking - Is the comparison of both the performance of the organizations processes and way these processes are conducted with those relevant world class organizations to obtain ideas for improvements

Core process – are process that meet the important needs of the organization's external customers (Linden, 1994), or business processes that are vital to the organization's success and survival.

Benefit-Cost Analysis: a technique to compare the various costs associated with an investment with the benefits that it proposes to return.

Customer: groups or individuals who have a business relationship with the organization; those who receive and use or are directly affected by the products and services of the organization.

Customers include direct recipients of products and services, internal customers who produce services and products for final recipients, and other organizations and entities that interact with an organization to produce products and services.

Dramatic improvements – achieving quantum leaps in performance rather than incremental improvements (Hammer and Champy 1993).

Fundamental rethinking - It ignores what *is* and concentrates on what *should* be (Hammer and Champy 1993).

Process – a collection of activities that take one or more kinds of inputs and create an output that is valuable to the customer (Hammer and Champy 1993)

Process Owner: an individual held accountable and responsible for the workings and improvement of one of the organization's defined processes and its related sub processes.

Performance Gap: the gap between what customers and stakeholders expect and what each process and related sub processes produces in terms of quality, quantity, time, and cost of services and products.

Performance Measurement: the process of developing measurable indicators that can be systematically tracked to assess progress made in achieving predetermined goals

Public service – refers to those activities of government institutions aimed at satisfying the needs and ensuring the well-being of the society as well as enforcing laws, regulations and directives of the government (FDRE, 2001).

Reengineering – is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, and speed (Hammer and Champy 1993)

Executive Steering Committee: the top management team responsible for developing and sustaining the process management approach in the organization, including selecting and evaluating reengineering projects.

Sub process: a collection of related activities and tasks within a process.

To-BE process – redesigning a new process that can serve the purpose of radical change.

Value adding activities – an activity the end user is willing to pay for, one which brings a service closer, faster, provides accurate real time information (Linden, 1994).

CHAPTER TWO

2 REVIEW OF RELATED LITERATURE

2.1 Business Process Re-engineering and Organizational Change

Most companies today - no matter what business they are in, however technologically sophisticated their product or service, or whatever their national origin - can trace their work styles and organizational roots to the prototypical pin factory that Adam Smith described in *The Wealth of Nations* [1], [23], published in the 1776. Adam Smith, a philosopher and economist, recognized that the technology of the industrial revolution had created unprecedented opportunities for manufacturers to increase worker productivity and thus reduce the cost of products, not by small percentage but by many fold. In *The Wealth of Nations*, Adam Smith explained what he called the principle of the division of labour.

Smith's principle embodies his observation that some number of specialized workers, each performing a single step in the manufacture of a pin, could make far more pins in a day than the same number of generalists, each engaged in making whole pins. "One man," Smith wrote "draws out the wire, another straitens it, a third cuts it, a fourth points it, a fifth grinds at the top for the receiving the head, etc." Smith reported that he had visited a small factory, employing only ten people, each of whom was doing just one or two of the 18 specialized tasks involved in making a pin. "These people could make among themselves upwards of forty-eight thousand pins in a day. But if they had all toiled separately and independently, and with out any of them being enlightened to this peculiar method, they certainly could not each of them have made twenty, perhaps not one pin each a day"

The division of labour increased the productivity of pin makers by a factor of hundreds.

The advantage, Smith wrote, "is owing to three different circumstances; first, to the increase of focus and alertness in every particular workman; secondly, to the saving in time which is commonly lost in passing from one kinds of work to another; and lastly, to the invention of a great number of machines which facilitate and help labour, and enable one man to do the work of many."

2.1.1 The concept

Business Process Re-engineering (BPR) emerged in America during the 1980s and early 1990s, first in the private and later in the public sector.

The rise of BPR is often explained by the reality that organizations have to confront old ways of organizing -the division of labour don't work anymore (Hammer & Champy, 1993). BPR

challenges many of the assumptions which underpin the way organizations have been run for the last two centuries. First, it rejects the idea of reductionism –the fragmentation and breaking down of organizations into the simplest tasks. Second, it encourages organizations to capitalise on substantial developments made in technology. Third, BPR enables organizations to take advantage of the more highly developed education and capabilities of the staff they employ (Beckford, 1998).

Task-oriented jobs in today's world of customers, competition and change are obsolete. Instead, companies must organize work around processes (Hammer & Champy, 1993). BPR insists on the need to restructure processes prior to structuring institutions and hierarchies, and to structure these processes in different ways than before. This is predicted on the assumption that the potential of IT enables innovative designs of how work is being carried out. At least in theory, BPR thus provides the missing link between the layer of strategy and that of the information system design. Moreover, it recommends a holistic perspective which encourages the bringing of objectives, human resources, organization, IT and culture into a coherent perspective (Lenk, 1997)

One of the best ways to explain the concepts and principle of Business Process Reengineering (BPR) is through the definition given by Hammer and Champy, who are one of the best-known figures in the field. Hammer & Champy, define Business Process Reengineering (BPR) as: "Business Process Reengineering is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, and speed".

In general, The concepts of reengineering are how to convert an organization from hierarchical to flat structure; how to prepare teams to achieve goals; how to achieve task-oriented employees to multidimensional workers, how to change managers from supervisors to coaches; and how to change overall process in order to be competitive in global economies. When a process is reengineered, jobs evolve from being narrow and task-oriented to broad and multidimensional work; people who once did as they were instructed now make choices and decisions on their own; managers start behaving like coaches rather than acting as supervisors; and employees focus more on clients needs and less on managers needs.

2.1.2 The Need for Reengineering

To be a truly world-class organisation, the company needs to work as a team and all the functional areas of the business need to be properly integrated, with each understanding the importance of cross functional processes.

As the basis of competition changes from cost and quality to flexibility and responsiveness, the value of process management is now being recognised. The role that process management can play in creating sustainable competitive advantage was termed Business Process Reengineering (BPR), and was first introduced by (Hammer, 1990; Davenport and Short, 1990). These authors outlined a new approach to the management of processes, which, it was claimed, was producing radical improvements in performance. The three driving forces behind this radical change are an extension of Porter's (Porter, 1990) work on competitive advantage, and were summarised by (Hammer and Champy, 1993) as: customers who can now be very diverse, segmented, and are expectant of consultation; competition that has intensified to meet the needs of customers in every niche; and change that has become pervasive, persistent, faster and in some markets a pre-requisite.

Customers, competition, and change have created a New World for business, such that organisations designed to operate in one environment are inadequately equipped to operate well in another. Companies created to thrive on mass production stability, and growth cannot be simply improved to succeed in a world where customers, competition, and change demand flexibility and quick response. This is also what (Drucker, 1969) termed the "Age of Discontinuity" or the challenge to the traditional assumptions of business.

In today's marketplaces, it is no longer a question of caveat emptor, but rather caveat factor. Customers today are characterised by their relentless demands in quality, service, and price; by their willingness to act on default of contract and by their disloyalty. In fact, the new power and freedom of the customer has destroyed many of the managerial assumptions of the early Management Revolution (Drucker, 1954). There is no longer unearned brand loyalties, no more complicity among rivals in the same markets; no more passing on of rising wages and benefits in the form of higher prices; no more easy reliance on high entry costs to keep out upstart competitors; and reducing protection by national governments. Still, as far as managers are concerned, the most powerful of the new stakeholders is the customer. The reward for managers who can earn their respect is not only repeat business but also willing investors. The aim of reengineering in this environment should be to facilitate the match between market opportunities and corporate capabilities, and in so doing, ensure corporate growth. To achieve these goals, downsizing and outsourcing will be by-products of reengineering, but they do not define reengineering, nor are they the purpose of reengineering.

Internally reengineering functional hierarchies into teams to facilitate work processes will lead to the elimination of most management layers and will teach managers to do far more with much less. Drucker's (Drucker, 1993) view, and one which we support, is that reengineering represents a

radical shift away from the tradition in which performance was primarily rewarded by advancement into managerial ranks, that is, the future holds very few "control" positions. In the ideal, hierarchy should disappear from the reengineered company, and be replaced by the idea of purposeful value added interaction. A change of this magnitude raises many challenges for those managers left to develop, motivate, reward, and affirm employees.

In general, there are several reasons for organizations to reengineer their business processes: (1) to re-invent the way they do work to satisfy their customers; (2) to be competitive; (3) to cure systemic process and behavioural problems; (4) to enhance their capability to expand to other industries; (5) to accommodate an era of change; (6) to satisfy their customers, employees, and other stakeholders who want them to be dramatically different and/or to produce different results; (7) to survive and be successful in the long term; and (8) to invent the "rules of the game." Whatever the reason for reengineering, managers should ask themselves: What do our customers and other stakeholders want/require? How must we change the processes to meet customer and other stakeholder requirements and be more efficient and effective? Once streamlined, should the processes be computerized (i.e., how can information technology be used to improve quality, cycle time, and other critical baselines)? Processes must be streamlined (i.e., re-invented) before they are computerized. Otherwise, the processes may produce results faster, but those results may not be the ones needed.

2.1.3 Organizational Change

According to (Stewart, 1983), no organization can stay the same forever. Changes occur inside and outside, which can force the organization to alter the way it affairs are managed. Organizations undergo change for a variety of reasons. Change may take place due to external forces driven from the organizations general environment and by internal forces like the decisions of management to alter a certain aspects of the organization or a shift in socio-cultural values.

There are different model of changes. The Kurt Lewin's model suggests that three steps are involved in change; unfreezing, change implementation and refreezing. The first stage is concerned with helping people involved in the change recognize the need for intended change to overcome inertia, the second face is when the change occurs – a period of confusion between the old ways and the new ones, and the third steps is the time when a new mind set will be crystallized so that the change becomes part of the system (Griffin, 2000).

Change in organizations always involves human beings. Ideas of change come from and developed in the minds of people. On the other hand, people regard change as an enemy and try to avoid or they resist it. Different authors agree on the fact that resistance to change is natural and inevitable even though the change has significant merits (Hammer, 1996; Obolensky, 1996). It, therefore, becomes to understand resistance for the sake of effective management of change. Unless resistance is properly addressed, it can hamper successful implementation of the resistance change.

Different authorities have identified different reasons why people resist change. For instance, uncertainty threatened self interest, different perceptions, and feeling of loss (Griffin, 2000); rational reasons like additional work load, risk of criticism, uncertainty and interference with existing plans; and irrational reasons which have no obvious basis so that difficult to identify (Morris and Brandon, 1993); a gap between the expectation of people and the perception the effects that the proposed change may have on them (Patching and Waitley, 1999). Paradigm changes cause such unconscious resistance like rejecting new ideas with out careful consideration or unwillingness to recognize the influence of the change.

Some times people form pictures in their minds about the change. They have their own perception and expectations. Up on comparisons drawn between expectations and perceptions, the employee develops a positive or negative attitude to ward the proposed change. If the perception formed on how the change will affect favours the expectations out of the change, the individual develop a positive attitude. On the other hand, if the perception is not favourable with expectations, the attitude to be developed will be negative.

2.2 Phases of Business Process Reengineering

There are four phases of business process reengineering. These phases are the planning, Understanding the As- Is/current process, Redesigning the To Be process and the implementation phases. These phases are interrelated and one is the stepping stone for the other (Liden, 1994)

2.2.1 Planning and Preparation of Business Process Reengineering

Prepare for Reengineering:

“If you fail to plan, you plan to fail”. Planning and Preparation are vital factors for any activity or event to be successful and reengineering is no exception. Before attempting reengineering, the question ‘Is BPR necessary?’ should be asked? There should be a significant need for the process to be reengineered.

Before going to implementation phase we have to have what to implement. BPR as a change initiative requires careful planning and preparation for its successful implementation. The objectives of planned change are two fold. First it seeks to improve the preparation of the organization to adapt the change in its environment. Second, it seeks to change employee behaviour (Clemons, 1995). As it was discussed in the preceding section of business process reengineering is fundamental, dynamic, dramatic change in the Business process. These changes are required to make the business process add value for customer's satisfaction. As all deliberate efforts of human being to reach the given ends, Business process reengineering is also requiring a systematic approach in order to survive its purpose in which planning serve as tools. Thus, business process reengineering projects can be planned. According to (Hammer, 2001) and (Jackson, 1997) the planning stage has four steps to be followed. These are: Understanding top level leadership commitment, select subject area/the entry point, establish BPR governance, and planning.

Understanding the Top level Leadership commitment.

(Hammer and Santon, 1993) also indicate that leadership is the primary ingredient of BPR because top leader recognize and understand the systematic difficulty of the process as a whole or to develop new ideas about it. On the other hand, other may lack such quality to run reengineering process. From this it is forward that reengineering is succeeded only when driven from the top most level of an organization. This indicate that the organization should enter to reengineering project with a good understanding of the plan of reengineering, such as understanding of :what is going to be done happens , what management effort and attention required for the BPR, what the top priority agenda for the organization, and how this will be supported and monitored?

Assign the leaders for BPR project.

As it was described above the part of the leader in the process of reengineering is not substitutable. But, what quality of manager should be required to lead the BPR Project? To address this question of leader (Hammer, 1993) identified some quality of leader. A leader must have an authority over the entire end to end process that is to be reengineered. Because the manager has the responsibility to compel the compliance of all parties involved in reengineering. To this end, chief executive officer might seem the most likely person to lead the reengineering effort.

In support of the above ideas, (Hammer, 2001) indicates that in most cases, the leader should be the head of the organization. If not must be member of for executive (Senior executive) that has authority over the stake holders and resources being involved in performing BPR. In addition, the

Activity and Process models making use of the various modelling methods available. Then, the amount of time that each activity takes and the cost that each activity requires in terms of resources is calculated through simulation and activity based costing (ABC). All the groundwork required having been completed; the processes that need to be reengineered are identified.

In addition, according to (Muthu et al., 1999) As-Is processes refers to the current processes that take place in an organization. Before the reengineering team can proceed to redesigning the process, they should understand and formally document the existing processes. Processes are currently invisible and unnamed because people think about the individual departments more often than the process with which all of them are involved. So, companies that are currently used to talking in terms of departments such as marketing and manufacturing must switch to giving names to the processes that they do so that they express the beginning and end states (Muthu et al., 1999).

According to (Kai A. Simon, 1998) Understanding – Activities are: Develop value driver understanding: Business value is created by certain drivers, and these factors must be understood in order to identify and assess the value creating potential of organizational processes. Value drivers are those activities that make a process' output more valuable than its input: Define 3-5 core processes: For each organization, it should be possible to identify a limited set of core processes, i.e. processes where the primary value stream takes place and that have the highest contribution to business objective achievement. Core processes are process that meets the important needs of the organization's external customers (Linden, 1994)

And also Identify core processes with maximum performance impact: In order to achieve substantial improvements fast, the core processes with the highest impact on organizational performance are selected and targeted as the initial objects. This does, however, not mean that the remaining processes can be neglected. The argument for selecting a sub-set of processes first follows the Pareto-principle, i.e. that a small number of processes account for the largest share of potential improvement: Identify process activities: Each process can be broken down into a number of activities. This de-composition process is iteratively continued until the level of desired remaining complexity has been reached, i.e. that the process is broken down into nearly decomposable sub-systems.

In additions, set performance goals: For each of the selected processes, a set of performance goals is developed. These goals are set upon the basis of an ideal process design and are used in order to identify the magnitude of the identified performance gaps: Measure current performance and identify performance gaps: For each of the processes chosen for investigation, the relevant

performance variables are measured and related to the identified performance goals. The magnitude of performance gaps, i.e. the difference between desired and actual performance, is identified in the primary dimensions time, quality and cost; Identify sources of pathologies: While performance gaps are symptoms of pathologies, the underlying sources need to be revealed. For this identification process, it is necessary to look beyond the boundaries of a specific process, since possible causes might be found in interdependencies with other processes and Determine causes: The process of determining the causes of pathologies includes the verification of possible causes that have been identified in the previous activity. It also means to divide direct and indirect causes and to track symptoms over multiple steps to the original generator.

2.2.3 Design To-Be process

The objective of this phase is to produce one or more alternatives to the current situation, which satisfy the strategic goals of the organizations. The first step in this phase is benchmarking. "Benchmarking is the comparing of both the performance of the organization's processes and the way those processes is conducted with those relevant peer organizations to obtain ideas for improvement." The peer organizations need not be competitors or even from the same industry. Innovative practices can be adopted from anywhere, no matter what their source.

Having identified the potential improvements to the existing processes, the development of the To-Be models is done using the various modelling methods available, bearing in mind the principles of process design. Then, similar to the As-Is model, we perform simulation and ABC to analyze factors like the time and cost involved.

According to (Kai A. Simon, 1998) Redesign – Activities are:

Develop clean slate process design. The design of the new process is following the clean-slate approach. Following this rationale means to develop a new process without taking departure from the existing one and to rearrange it. However, it does not mean to disregard the results of the analysis of the existing process. Learning from analysis during new process design means to consider the shortcomings of the existing process that have been identified.

Benchmarking is a powerful tool for BPR and is the trigger for many BPR projects, as in Ford's accounts payable process. The value of benchmarking does not lie in what can be copied, but in its ability to identify goals (Richman and Koontz, 1993; Earl and Khan, 1994). If used well, benchmarking can shape strategy and identify a potential competitive advantage (Zairi and Leonard, 1994).

perspective of the organization. This can be achieved by conducting attitude surveys and discrete 'fireside chats' with those initially not directly involved with the change.

As for monitoring the results, the monitoring should include such measures as employee attitudes, customer perceptions, supplier responsiveness etc. Communication is strengthened throughout the organization, ongoing measurement is initiated, team reviewing of performance against clearly defined targets is done and a feedback loop is set up wherein the process is remapped, reanalyzed and redesigned. Thereby continuous improvement of performance is ensured through a performance tracking system and application of problem solving skills. Continuous improvement (TQM) and BPR have always been considered mutually exclusive to each other. But on the contrary, if performed simultaneously they would complement each other wonderfully well. In fact TQM can be used as a tool to handle the various problems encountered during the BPR effort and to continuously improve the problems. (Subramanian, M, Larry, W, and S. Hossein Cheraghi, 1999)

2.3 BPR Success/Failure Factors

2.3.1 BPR success factors

There are both soft and hard factors that cause success and failure of BPR efforts.(Bashein et al. ,1994) outline the positive preconditions for BPR success as: Senior Management Commitment and Sponsorship; Realistic Expectations; Empowered and Collaborative Workers; Strategic Context of Growth and Expansion; Shared Vision; Sound Management Practices; Appropriate People Participating Full-Time and Sufficient Budget.

In addition, According to (King ,1994) views He concludes that the ultimate success of BPR depends on the people who do it and on how well they can be motivated to be creative and to apply their detailed knowledge to the redesign of business processes

The factors listed below are based on various articles and empirical research on BPR implementation. These dimensions are: change management, management competency and support, organizational structure, project planning and management, IT infrastructure

2.3.1.1 Factors relating to change management systems and culture

Factors relating to change management systems and culture are important to the success of BPR initiatives. Change management, which involves all human- and social related changes needed by management to facilitate the acceptance of newly designed processes and structures into working

practice and to deal effectively with resistance, is considered by many researchers to be a crucial component of any BPR effort.

Revising reward and motivation systems

Staff motivation through a reward programme has a crucial role in facilitating re-engineering efforts and smoothing the insertion of new processes in the workplace (Towers, 1994; Hinterhuber, 1995; Ostroff and Smith, 1992; Dawe, 1996). As BPR brings about different jobs, existing reward systems are no longer appropriate for the new work environment (Hammer and Champy, 1993; Harvey, 1995; Davenport and Nohria, 1994). Therefore, reward systems should be revised as part of the BPR effort (Jackson, 1997) and the new reward and incentive system must be widespread, fair and encourage harmony among employees (Towers, 1994). Introducing new job titles can be considered as one example of encouraging people to endorse the re-engineering programme without fear.

Effective communication

Effective communication is considered a major key to successful BPR-related change efforts (Davenport, 1993; Jackson, 1997; Hammer and Stanton, 1995). Communication is needed throughout the change process at all levels and for all audiences (Davenport, 1993a), even with those not involved directly in the re-engineering project. Effective communication between stakeholders inside and outside the organisation is necessary to market a BPR programme (Talwar, 1993; Hinterhuber, 1995) and to ensure patience and understanding of the structural and cultural changes needed (Berrington et al., 1995) as well as the organisation's competitive situation. Communication should take place frequently and in both directions between those in charge of the change initiatives and those affected by them). Communication should be open, honest, and clear, especially when discussing sensitive issues related to change such as personnel reductions (Davenport, 1993a; Jackson, 1997).

Empowerment

As BPR results in decisions being pushed down to lower levels, empowerment of both individuals and teams becomes a critical factor for successful BPR efforts (Thomas, 1994; Bashein et al., 1994) since it establishes a culture in which staff at all levels feel more responsible and accountable and it promotes a self-management and collaborative teamwork culture (Mumford, 1995).

Empowerment entails that staff are given the chance to participate in the redesign process (Bashein et al., 1994). When empowered, employees are able to set their goals and monitor their own

performance as well as identify and solve problems that affect their work, thus they are supporting the BPR efforts. Therefore, Empowerment means giving people the ability to do their work: the right information, the right tools, the right training, the right environment, and the authority they need. Information systems help empower people by providing information, tools and training.

Human involvement

According to (Jackson, 1997) in re-engineering, all people must be openly and actively involved and should be consulted at all stages on the process and its leaders. This includes line managers, process owners, those involved in IS and human resources, and workers (Bashein et al., 1994). The culture of experimentation is an essential part of a successfully re-engineered organisation and, therefore, people involved or affected by BPR must be prepared to endure errors and mistakes while re-engineering is taking place.

Training and education

Many researchers consider training and education to be an important component of successful BPR implementation (Towers, 1994; Bashein et al., 1994).

Organisations that undertake re-engineering projects may have to increase their training budget by 30-50 percent (Towers, 1994). BPR-related concept, skills, and techniques (Berrington and Oblich, 1995) as well as interpersonal and IT skills (Towers, 1994), skills in TQM implementation and process analysis techniques, are all important dimensions of training for BPR. It is also important to educate people in IT-related innovations for competitive advantage, the potential of IT in reshaping the business and the leadership of empowered organisations (Bruss and Roos, 1993). Business managers, line managers, IS managers, and other staff in the front-line are the people who benefit most from education and training activities in both business and IT-related skills and expertise (Towers, 1994).

Creating an effective culture for organisational change

Organisational culture is a determining factor in successful BPR implementation (Hammer and Champy, 1993; Davenport, 1993). Organisational culture influences the organisation's ability to adapt to change. The existing culture contains beliefs and values that are often no longer appropriate or useful in the re-engineered environment.

Therefore, the organisation must understand and conform to the new values, management processes, and the communication styles that are created by the newly-redesigned processes. So that a culture which upholds the change is established effectively (Bruss and Roos, 1993). In a

newly re-engineered organisation, people usually share common goals and thus become more capable of working co-operatively without competing against each other (Andrews and Stalick, 1994). As BPR supports teamwork and integration of labour, co-operation, co-ordination, and empowerment of employees become the standard attitudes in the re-engineered work environment. However, trust and honesty among team members is also needed, and within the organisation as a whole (Jackson, 1997).

In addition, stimulating the organisation's receptiveness to change preparing the organisation to respond positively to BPR-related change is critical to success (Bruss and Roos, 1993). When people are made resilient to change, they remain positive during uncertainty, focused, flexible, organised, and pro-active (Jackson, 1997). Leveraging organisational change requires effective one-to-one and one-to many interactions to enrol key influencers of both individuals and groups within and without the organisation (Guha et al., 1993; Jackson, 1994).

2.3.1.2 Factors for Management Competency

Sound management processes ensure that BPR efforts will be implemented in the most effective manner. The most noticeable managerial practices that directly influence the success of BPR implementation are top management support and commitment, championship and sponsorship, and effective management of risks.

Commitment and leadership in the upper echelons of management are often cited as the most important factors of a successful BPR project. Leadership has to be effective and creative in thinking and understanding in order to provide a clear vision of the future. This vision must be clearly communicated to a wide range of employees who then become involved and motivated rather than directly guided.

Commitment to and support for the change must constantly be reinforced from senior management throughout a BPR project. Sufficient authority and knowledge, and proper communication with all parts in the change process, are important in dealing with organizational resistance during BPR implementation (Hammer and Champy, 1993).

Barriers such as political, economic, and organizational risks are all associated with BPR-related change. And champions of the change play a major role in overcoming these barriers and increasing the chance of successful BPR implementation. The champions must be able to persuade top management of the need to change and to continually push the change efforts throughout the organization.

A complete development of process vision includes evaluating business strategy to anticipate future processes, conducting customer-based assessment of performance targets, benchmarking similar BPR efforts, and developing process attributes and its performance measures (Davenport, 1993a).

2.3.1.5 Factors related to IT infrastructure

Building an effective IT infrastructure is a vital factor in successful BPR implementation (Jackson, 1997). An adequate understanding of technologies for redesigning business processes is necessary for proper selection of IT platforms. Effective overall system architecture, flexible IT infrastructure and proper installation of IT components all contribute to building an effective IT infrastructure for business processes. The IT infrastructure and BPR are interdependent in the sense that deciding the information requirements for the new business processes determines the IT infrastructure. In addition, recognition of IT capabilities provides alternatives for BPR. Building a responsive IT infrastructure is highly dependent on an appropriate determination of business process information needs. This, in turn, is determined by the types of activities within a business process, and the sequencing and reliance on other organizational processes.

According to (Henderson and Venkatraman, 1993) an effective IT infrastructure follows a top-down approach, beginning with business strategy and IS strategy and passing through designs of data, systems and computer architecture. Linkages between the IT infrastructure components are important for ensuring integrity and consistency among the IT infrastructure components. IT standards also have a major role in reconciling various infrastructure components to provide shared IT services that are of a certain degree of effectiveness to support business process applications. The IT infrastructure shared services and the human IT infrastructure components, in terms of their responsibilities and their expertise, are both vital to the process of the IT infrastructure composition.

Selecting an IT Application

One main objective of BPR is to use IT to support radical change. Some authors view IT as the central implementation vehicle of BPR. However BPR has not really worked as its proponents expected. (Davenport and Short, 1990) attribute this problem to a lack of understanding of the deeper issues of IT. They claim that IT has traditionally been used to increase the speed of work but not to transform it and BPR is about using IT to do things differently.

Therefore, IT plays an important role in BPR. Properly implementing IT can improve the competitive position of organizations. But inappropriately implementing IT may create barriers to responding to the rapidly changing business environment. Further, simply picking IT packages cannot achieve successful BPR if it is simply used to speed up the process rather than reengineer it.

As (Davenport ,1993) contends: information and IT are rarely sufficient to bring about the process change; most process innovations are enabled by a combination of IT, information and organizational/human resource changes. IT can continuously reflect and reinforce bureaucratic and functional structures or IT can help to create a leaner, flatter and more responsive organization. For example, IT tools that are designed for functional hierarchies are primarily designed to support incremental improvements and cannot achieve the radical change in BPR projects. While information systems provide fast processing and response, they often fail to provide the flexibility for human communication, which can lead to serious consequences. This means IT may sometimes have a negative impact by merely automating the existing processes. However, it could also have a positive impact if it is deployed correctly in conjunction with the organization's goals. IT is the enabler to reengineer processes and is an important driving force for business transformation.

2.3.2 BPR failure factor

Bashein et al (1994) showed that only 30% of BPR projects achieved performance breakthrough. Reasons for large failure include :(i) Lack of sustained management commitment and leadership(ii) Unrealistic scope and expectation (iii) Resistance to change. (iv) Non-encouragement to conceptualization of business process (v) Non-detailing of rewards and recognition with new business process.

Therefore, Implementing BPR in University or in any other business is not an easy task. Certainly, it will be hampered by barriers, which lead in many cases, to failure. Barriers are not easy to discover, to detect and to overcome. Barriers are severe, unexpected and not planned for Business Reengineering Projects. Barriers increase the impact of project risk factors.

In addition, Barriers impede application of BPR. If those barriers consume high energy and time, it is not recommended to perform Reengineering Project (Schumacher, no date). Also, 'it is highly recommendable not to pitch success factors hard against barriers, but rather to prevent the development of barriers right from the beginning of the project (Schumacher, no date).' Lack of committed leadership, unmotivated people, and organization culture are amongst the top barriers to successful BPR efforts (Bechdol, 1995). (Abdulhadi ,1997) presented what he calls 'the vicious cycle' where various barriers interact to result in BPR failure. These barriers include: (1)

misjudging BPR; (2) misunderstanding BPR; (3) use of inadequate tools; (4) use of inadequate approach; (5) lack of system understanding; (6) unconvincing solutions; (7) lack of top management commitment; and (8) resistance to change.

On the other hand, numerous academics and consultants agree that many of the so-called BPR failures were not real BPR programmes. The majority of these efforts were projects that gradually slipped down the priority list and eventually faded away, or were deliberately killed off before any change was implemented (Hammer and Champy, 1993; Miers, 1994). The most significant causes of these failures are believed to be: (1) lack of top management commitment and support; and (2) resistance to change by subordinates.

(McAdam, 1999) discussed the implementation of BPR within small and medium enterprises (SME). It is a general belief that small and medium businesses, with their limited resources, are not good candidates for BPR. However, due to the relative simplicity of such organizations, associated BPR risks may be minimal. Resources, market environment, leadership, flexibility and change orientation, structure, methodology, and measurement are believed to be critical success factors for SME.

(Songer et al., 2000) analysed BPR case studies; they refer to their work as 'situational re-engineering'. As the name implies, these are BPR cases that were encouraged by exceptional situations and resulted in projects with reduced cost, and duration. Additionally, no negative effects were observed on safety and quality. After listing factors for good re-engineering, Songer et al. identified the following barriers to successful situational re-engineering: (1) soft issues which include natural resistance to change, comfort in regimentation, unwillingness to share risks equitably, risks in using existing designs, exhausted of change, and fear; (2) tangible barriers which include liability and credibility, being methodically trained to be methodical, measures focusing on results, and few postmortems.

In addition, Barriers are classified by (Chan and Yung, 1999) as those related to: (1) individual level such as personal characteristics, attitude towards change, and personal perceptions about innovation; (2) organizational level such as size of the organization, its structure, and innovativeness of the organization; and (3) environmental level that includes organizational dependence, uncertainty, communication, and competitive environment. Several authors identified priority lists of barriers/ pitfalls to successful BPR (Panettieri, 1994; Hammer and Stanton, 1995; Mayer, 1998), they seem to agree that resistance to change, fear, lack of understanding and

commitment, following inadequate BPR approach and culture are amongst the strongest obstacles to successful BPR.

According to (Hammer and Champy, 1993; Grover et al., 1995; Davenport, 1993; Jackson, 1997) problem of communication related to change management system and culture include: Inadequate communication of need to change, Hiding uncertainties in communication, Poor communication between BPR teams and other personnel, Lack of motivation and reward. On the other hand, Problem related to creating a culture of change include: Underestimating the human side, Not considering existing management systems and organisational culture, Values ignorance, A lack of trust between management and employees, The tendency to copy others, Underestimating the role of politics in BPR, Animosity toward and by IS and human resources specialists.

2.4 Benefits of Business Process Reengineering

Successful BPR projects may lead to several benefits in different areas of business concerns such as customer satisfaction, time to market, time to service, empowerment of human resources, and effective management. Management usually misses the proper consideration of the benefits of BPR (Rai and Paper, 1994), leading to reduction in their interest and commitment to BPR efforts. The characteristics of BPR are to take a fundamental analysis and radical redesign of the business process.

On the other hand, (C Kapoor, 2010) according to BPR brings numerous benefits to organizations and companies in which it is implemented. As all employees are aware of the processes to which they belong, they have a greater sense of responsibility. All processes are completely monitored under the strict control of the management. The net result of this is that employees deliver high quality products to their customers. Proper management and control of all business processes reduces the time lag between different processes, which otherwise is quite high causing delays. This in turn reduces the time to market the product to the target customers and gives quicker response to buyers. With the proper management of processes, improved efficiency and quick delivery of products to the buyers, the overall product costs are reduced resulting in cost saving for the organization in the long run.

As the time lag of product processing between different departments gets reduced due to the application of business process reengineering, there are more meaningful tasks to be performed by employees. This leads to increase their levels of motivation and the desire to perform well. According to the traditional approach of managing an organization there is no flexibility or

adaptability to change. The management formulated strict rules for employees of the organization. Whereas now, when most organizations have implemented business process reengineering there is an increase in flexibility and adaptability for change. This has created better environment for people to work, thus leading to employee satisfaction.

Although BPR is very effective in controlling cost and improving efficiency, its implementation is a hard nut to crack. Employees are very resistant to this kind of change thus, it is important to have extensive support from the top management. Implementation of BPR results in the growth of the present business thus enabling the emergence of new businesses within the same organization.

In general, BPR brings about numerous benefits to companies and organization. Some of the more obvious and common benefits are: Improve Efficiency e.g. reduce time to market, provide quicker response to customers ,Increase Effectiveness e.g. deliver higher quality ,Achieve Cost Saving in the longer run ,Provide more Meaningful work for employees ,Increase Flexibility and Adaptability to change .Enable new business Growth.

2.5 Why BPR Initiated in Ethiopia?

Ethiopia as a developing country has a transformation agenda spanning over decades, This agenda has evolved over three phases (1992, 1996-2000 and 2001 on wards) in response to a growing alertness that pervasive deficits in capacity have hampered, the ability of the state to secure the fundamentals of poverty reduction and democratic development including responsive service delivery, citizen empowerment, good government (Ministry of Capacity Building in Getachew and Common, 2005).

The first reform phase was in the early day of ruling party, EPRDF. Following the consolidation of power, the government also acknowledged the deep institutional constraints on basic function such as police making, service delivery, and regulations. Core public management systems at the federal and regional level were hampered by outdated civil service legislation and working systems; the absence of a mid-term planning and budgeting framework; ineffective financial and personnel management controls; inadequate civil service wages and in appropriating grading system; poor capacity for strategic and cabinet level decision making; and insufficient focus on modern managerial approaches to service delivery (Getachew and Common, 2005). These all are the interrelated problems of the civil service in the country.

Moreover, hierarchical organizational stricture which led to long and time consuming service delivery and obsolete management structure; more concern given to inputs and routine activities than achieving tangible out puts; the absence of a formally constituted complaints handling

mechanism; rare consultation of the service users about their needs; and lack of coordination and among various departments in an organization were found to be the major problems and drawbacks which led to inefficient and ineffective service delivery (MoCB, 2006). These and other problems limited the role of civil service to promote social and economic development of the country.

With a strong belief that an efficient effective service delivery; and ethical fair, dynamic and productive civil servants in civil service play a significant role to successfully implement different policies and strategies, an attempt to improve service delivery became a key issue in the comprehensive civil service reform programs. To this end the Ethiopian government issued the Service Delivery Improvement Policy in 2001. The overall objective of the policy was to attain user satisfaction in service delivery in the civil service delivery providers and recipients (FDRE, 2001).

According to the policy document, the directions designed to attain the general and the specific objectives include formulating mission statements, promoting positive attitudes toward serving the public, defining eligibility, facilitating easy access, coordinating related services, establishing complaints handling mechanisms, providing adequate information, consulting with service users, providing cost effective service, and promoting transparency (FDRE, 2002). These policy instruments are believed to help tackle most of the service delivery problems mentioned above. Business process Reengineering (BPR) was initiated in the country being one of the implementation tools of this policy.

In general, few years after the downfall of the military government, the new Ethiopian government recognized the importance of improving the performance of service delivery and the creation of accountable and responsible civil service institutions that would support the development efforts in the country. To achieve these objectives, the government framed five pillars of the civil service reform program. They are the top management system, civil service ethics, expenditure management, service delivery and human resource management. The government established the Ministry of Capacity Building in the year 2001 in the name of the "Office for the Coordination of Capacity Building" (Proclamation No. 256/200; 1630-1632) to coordinate these pillars of reforms. The government redefined the roles and the responsibilities of the Ministry in the year 2005. The redefined responsibilities were identifying the capacity gaps in the country, formulating and coordinating the implementation of reform projects and programs, establishing the monitoring and evaluation system that ensures the effectiveness of reform programs, creating modern civil service system equipped with high human resource capacity, and paying attention to the expansion and

utilization of Information and Communication Technology (ICT) in the country (Proclamation No. 471/2005: 3280).

Since its establishment, the Ministry has conducted quite a lot of management training programs such as customer service delivery, strategic planning and management and result based performance management with the aim of enhancing the human resource capacities of the civil service organizations. Though the progress made on quality is subject for further discussion and research, the Ministry has contributed a lot in spreading the concepts of management among government employees, and in bringing the different civil service agencies under the influence of change.

Business process reengineering (BPR) is the analysis and design of workflows and processes within and between organizations (Davenport & Short, 1990). In spite of academics' often sceptical stance against BPR and other management concepts (Birnbaum, 1988), which may seem foreign to the organizational culture of higher education (HE), many universities have reengineered their internal processes. According to a recent study conducted by *Educuse* (Kvavik, Goldstein, & Voloudakis, 2005), HE institutions have invested heavily in business process reengineering, leveraging information technology to improve services and reduce costs. This interest in rethinking processes and procedures is driven mainly by budget shortfalls, information technology infusion, and external pressures for greater accountability and responsiveness. Despite this enthusiasm and heavy investment from HE institutions however, few studies have examined the overall effectiveness and outcomes of reengineered processes.

Expansion of higher education has got the highest priority in Ethiopia. The number of public universities has grown dramatically from 2 to 22 within a period of less than a decade; the number is expected to rise to 33 within the next five years. Hence, the number of students joining the universities has proportionally increased many folds. This has led to a need for improved quality and efficiency in academic, research and community service, administrative and human resource management sectors along with a greater range and flexibility than currently existing.

All Ethiopian Universities are currently using Business Process Re-Engineering (BPR) as a change management strategy to obtain improvements in service. The aim is to ensure that the Universities adapt to the changing demands being placed upon them, and hence contribute to the Government's effort in its development endeavour. A number of interrelated pressures have created the need for change: expansion of higher education, changing student profile joining the higher learning institution, pressure from stakeholders, increased competition among higher learning institution,

changes in the pedagogy of learning/teaching, increased competition for graduates and hence, increased orientation to the job market. Increased autonomy, increased demand for quality and accountability, the dynamism of Information and Communication Technology (ICT), and so on.

In Dire Dawa University to undertake the overall operations of the university's activities, the university adopted procedures of doing businesses from elder universities of the country such as Addis Ababa University, Adama University and so on. However, nearly all universities of Ethiopia use traditional or fragmented ways of doing businesses that cannot satisfy the customers' (stakeholders') need and ineffective processes for the attainments of the organizational objectives. Generally, the old processes are not effective for the developments of the country at all. Hence, all public universities of Ethiopia including Dire Dawa University, under the delegation of Ministry of Education have been engaged for the last two years (2008 and 2009) in Business Process Reengineering (BPR) project to tackle the traditional or fragmented ways of doing businesses. Dire Dawa University, in spite of all the challenges associated with new universities, is actively contributing to the realization of multiple government policies and, in extension, working towards the development of Ethiopia. Recognizing the importance of technology in development as espoused in *Development, Technology, and Technology Capacity Building Direction* (MOE, 2008b) policy document Dire Dawa University seeks to produce qualified human power in sufficient number to contribute to the economic need, with an emphasis on capacity in technology.

CHAPTER THREE

3 Research Design and Methodology

3.1 Research Method

In this research the descriptive survey method was employed. The method helps to find out the solution for the existing problems on implementing BPR. It also helps to interpret, analyze and to answer the basic question. The method is employed as it is an appropriate method which enables the research in assessment of Business Process Reengineering (BPR) implementation in broad and wide magnitude.

Qualitative methods always involve some kind of direct encounter with the real world, whether it takes the form of ongoing daily life or interactions with a selected group. The qualitative researcher is concerned not only with objectively measurable 'facts' or 'events', but also with the ways that people construct, interpret, and give meanings to these experiences. Furthermore, qualitative approaches typically include attention to dynamic processes rather than, or in addition to, static categories, and they aim to discover or develop new concepts rather than imposing preconceived categories on the people and events they observe. Quantitative methods are built upon a foundation of premises and beliefs, including the assumption that data must yield proof or strong confirmation of a theory or hypothesis in a research setting, involve measurement and testing. By considering the above points, getting information from these two experiences increase the certainty of the study. Therefore, it was necessary to utilize a combination of both qualitative and quantitative data collection and evaluation techniques in order to successfully proceed with the research project.

3.2 Data Sources

Primary sources: Primary data were obtained from key informants; namely top executives (university president and vice presidents), BPR team leaders, process owners, job performers and customers in DDU. **Secondary sources of data:** Like BPR manuals, main document, guide lines, report on BPR implementation and other relevant document are used as the data sources.

3.3 Sample and Sampling Techniques

The study was employed different sampling procedures to select the appropriate samples. At the Dire Dawa University level it was organized with two core processes and four supportive processes. The core process were Teaching-Learning, Research and Technology. The supportive process include; Resource generalization, Compound service, Human Resource Management and Student Services. Process owners for each process and job performers as a team assigned for both

core and support processes. The whole core processes were taken for the study by purposive sampling method because these process that meet the important needs of the organization's and can obtained more reliable information on the implementation of BPR. Some customers were taken through accidental sampling method because they can give reliable information on the spot when they are getting the service. BPR team leaders, process owners and top executives were selected by purposive sampling method since they can give adequate and necessary information due to the role in the process/or their position. Job performers were selected by random sampling i.e. lottery method, in order to give an equal chance of being included in the study. And also the university have five school and school of mathematics and Natural science was selected randomly for pilot testing.

Table 1. Sample

No	Target group Respondents	Population	Sample	Sampling Technique	Data collection tool
1	Top executives	3	3	Purposive	Interview, Questionnaire
2	BPR team leaders	11	11	Purposive	Questionnaire, Interview
3	Process owners	6	6	Purposive	Questionnaire, FGD
4	Job performers/ reengineering teams	86	62	randomly	Questionnaire
	Total	106	82		

3.4 Instruments of Data Collection

In this study, the following main instruments of data collection were used; namely Questionnaire, Semi-structured Interview and Focus Group Discussion; Documentary Analysis was used to strengthen the data as supplementary instrument.

A Questionnaire

The reason behind this instrument is that it is possible to reach relatively large sample in available time limits.

The questionnaire was used for top executives, BPR team leaders, process owners, and job performers. It was designed to get detailed information on implementation of BPR. Closed and open-ended questions were included in the questionnaire. The questionnaire was prepared in English language since all subjects of the study were qualified and able to read write in English.

The questionnaire contains choice items, five point scale rating items and ranking questions. The key elements included in the questionnaire were about the preparation, redesign and the readiness made on implementation activities and the benefits of BPR. In addition it contains questions about the implementation of BPR and strategies used to alleviate the challenges.

B. Interview

As indicated in (Wilkinson and Bhandarkar, 1999), interviewing is necessary to get deep feeling, perceptions, values or how people interpret the world around them, and past events that are impossible to replicate. By having this idea in mind, the researcher initiated two type of the semi-structured interview were conducted i.e. interview for Top executives and BPR team leaders: Interview guide questions include questions about the preparation, readiness, and design of BPR on implementation activities and the benefits of BPR. Moreover, it contains questions related to identification of major challenges faced and its remedies used to overcome them. In addition, interview for 20 customers (students and teachers) were interviewed when they are getting service from the university. Interview guide questions for customers include questions about the improvement efficiency and organizational approach and increase effectiveness, concept and purpose of BPR. Semi-structured – these interviews have predetermined questions but the order, content, and wording can be modified depending on the interviewers' perception of what appears appropriate. This allows greater flexibility than structured interviews and makes it easier to develop a rapport between interviewer and interviewee (Burns, 2000). The main problem with this technique is that it is difficult and time-consuming to assess comparisons of the information provided by the respondents

C. Focus group discussion

Focus group discussion is an important yet structured discussion in a small number of participants (usually six to twelve); were guided by moderator or facilitator, talk about topic of special importance to a particular research issue. Participants were selected from a narrowly defined to get population whose opinions and ideas are relevant to the research. The discussion was arranged with process owners, observed and recorded. Unlike interview, FGD helps to get an in depth data since participant interaction with each other is a common feature of FGD. Therefore, 6 people were selected purposively from the process owner for discussion, because this group members must have had adequate knowledge, experience of BPR and to get insight on the readiness, benefits/significant and challenges of BPR implementation. In addition, possible solutions for the

problems or challenges and future expectations in different groups.

3.5 Procedure of Data Collection

For this study, First relevant review literatures was collected so as to get adequate information on the topic. Secondly, visiting the university, on the first visit, identify the exact location of participant as per the sample size in each group was determined and data gathering tools were developed. On the second visit, on the first day an interview schedule was presented to the participants and discussions were made with the selected respondents. In addition, the target groups for two hours and ten minutes were specified. The questionnaires were developed. After questionnaires were prepared pilot testing were made on one randomly selected school from five schools of DDU, Durgam Cheruvu, Hyderabad. The pilot testing were conducted on four Professional experts of school of mathematics and Natural science(department heads) and the internal consistency of the instrument was calculated using cronbach alpha as it was appropriate to test the reliability of Likert scale questions items. Therefore, the internal consistency was calculated using an alpha coefficient, which measures the interrelationship between items in the questionnaire (Cortina, 1993). (Nunally, 1978) argued that a reliability of 0.70 or higher is acceptable. The Cronbach alphas all ranked higher than 0.70 (actual scores were 0.79). This analysis indicates that the scales used in the study are reliable (Terziowski et al., 1997). Moreover to confirm the validity of the instrument participants of the pilot tests were oriented about the objectives of the pilot study, how to fill, how to evaluate and give feedback regarding the relevance of the questions items. Based on the questions forwarded and information obtained the necessary correction and modification were made before the questionnaires administered to subjects of the study. In general, the pilot test help the research reduces the number of items; avoid errors related to clarity of language and contents, and to include some important concepts which were not included in the questionnaire. After the necessary improvement was made the questionnaire was duplicated and distributed with the necessary orientation to be filled by the respondents.

3.6 Data analysis

The questionnaires were coded and analyzed by using statistical package for social sciences (SPSS) program. It made the computation precise, dependable and not time consuming. Descriptive statistics like arithmetic mean, standard deviation and percentage were used to indicate the extent of response or frequency per each item. Advanced statistical tools namely independent two sample t-test and Pearson chi-square were employed to see whether or not there exist differences between the response given by the leaders and job performers and those relationships were statistically significant or not. The categories of the respondents in analysis were used as leaders (Top executives, process owner, BPR team leaders) because these groups are more committed and responsible for the implementation of BPR and job performers in the university.

The qualitative data were obtained from the documents, focus group discussion and semi-structured interview was transcribed, edited and organized around the sub topics derived from the research questions. Further more the data from the interview, focus group discussion, open-ended questions and documents were triangulated, and checked against the quantitative ones.

CHAPTER FOUR

4 Data Presentation, Analysis and Interpretation

In this chapter, the data gathered from leaders (top executives, BPR team leaders, and Process owners), Job performers and customers of the university using questionnaire, semi-structured interview and FGD were presented in tables followed by description, results and interpretations.

4.1 Characteristics of respondents

The characteristics of the respondents were described in terms of sex, age, educational background, and work experience in years, position in the university, and any training related to BPR. The main objectives of this section of the study were to provide basic background information about the target population of the study. The target group of this study were leaders (Top Executives, Process owners, and BPR team leaders), Job performers and customers. A total of 82 questionnaire copies were distributed to respondents and 87 %(71) questioners were filled and returned of which 51(62.19%) were job performers, 11(13.4%) were BPR team leaders, 6(7.32%) were process owners and 3(3.7%) were top executives. Based on the data collected, the general characteristics of the respondents of the study were analyzed as below Table 2a and 2b

Table 2a. Demographic and back ground respondents

Sex		Male	Female	Total	Percentage (100%)		
					Male (100%)	Female (100%)	Total (100%)
Age	Below 20	-	-	-	-	-	-
	20-29	17	4	21	23.94	5.63	29.57
	30-39	34	6	40	47.89	8.45	56.34
	40-49	7	2	9	9.86	2.82	12.68
	50-59	1	-	1	1.48	-	1.48
	60 and above	-	-	-	-	-	-
Educational level	Grade 12 or below	-	-	-	-	-	-
	Certificate holder	-	-	-	-	-	-
	Diploma	11	5	16	15.49	7.04	22.53
	10+1 or 10+2	-	-	-	-	-	-
	BA/BSC/BED	13	4	17	18.31	5.63	23.94
	MA/MSC/MED	33	3	36	46.48	4.22	50.70
	PHD	2	-	2	2.82	-	2.82
Position in the university	Process owner	5	1	6	7.04	1.41	8.45
	Job performer	41	10	51	57.75	14.09	71.84
	BPR team leader	11	-	11	15.49	-	15.49
	University president/vice president	2	1	3	2.82	1.41	4.23
Any training related to BPR	Trained/enough	24	5	29	33.8	7.04	40.84
	Trained/not enough	32	6	38	43.66	8.45	52.11
	Not trained	3	1	4	4.22	1.41	5.63

As Table 2a shows more than 83% of the respondents were males. The female constitute only 16.9% of the total numbers. This shows that the majority of the respondents were males.

Concerning the age range, most of the respondents in the university belong to the age group 30-39 were 56.34%. This shows that it is usually possible to introduce a dramatic change with such people. From the total respondents 29.57% of young staff members, who are 20-29 years old. This shows that possible to create good work culture and introduce a dramatic change from the beginning. 12.68% respondents, who are 40-49 and 1.48% of respondents, who are 50-59. This shows that all respondents were above 18 employable ages in Ethiopia. It also shows that under normal circumstances, they can express ideas related to the study consistently and with good understanding. So their opinions can be taken as acceptable to the study.

Regarding the Educational level, table 2a shows that almost half of the respondents were degree and diploma holders, i.e. 23.94% were first Degree and 22.53% Diploma holders.

And 50.7% of the respondents were MA/MSC/MED holders. This shows that the majority of the respondents were second degree holders. 2.82% of the respondents were PHD, this show that the numbers of PHD holders in the university was too small in numbers.

Concerning the positions in the university, Table 2a shows that 71.84% of the respondents were job performers/BPR teams. This shows that the majority of the respondents were BPR teams/job performers. Thus give enough information about the implementation of BPR for this study. The respondents of the process owners and BPR team leaders were 8.45% and 15.49% respectively.

Regarding any training related to BPR, Table 2a shows that 5.63% of the respondents were not take any training related to BPR. As a radical change that requires new attitude, commitment, effective communication, etc the university effort to wards introducing the change is weak. According to the review literature, many researchers consider training and education to be an important component of successful BPR implementation (Towers, 1994; Bashein et al., 1994; Clemmer, 1994).

In addition, 52.11% of respondents were trained/not enough. This shows that the majority of the respondents were not take enough training. According to the discussion held with same process owners in the university, the training given was a kind of orientation conducted for few days. This can cause a serious problem while carrying out the reengineering process from planning to implementation, 40.84% of the respondents were took enough training related to BPR. This shows that only 40.84% of the respondents seem to have better performance although it can't be considered as required enough. Almost all of the respondents were take trainings related to BPR. This is due to the fact that the university are change agents that is responsible for coordinating different reform activities including, the organization of relevant trainings. The more people are trained in different aspect of BPR, the smoother the process of change will be.

Table 2b. Respondents experience

Sex		Male	Female	Total	Percentage (100%)		
					Male (100%)	Female (100%)	Total (100%)
In current positions	1 years	13	5	18	18.31	7.04	25.35
	Two years	33	4	34	46.48	5.63	52.11
	Three years	-	-	-	-	-	-
	4 and above	13	3	16	18.31	4.22	22.53
In the university	1 years	7	-	7	9.86	-	9.86
	Two years	15	4	19	21.13	5.63	26.76
	Three years	20	2	22	28.18	2.82	30.99
	Four years and above	16	7	23	22.54	9.86	32.40
In other organizations	1-3 years	13	2	15	18.31	2.82	21.13
	4-6 years	7	1	8	9.86	1.41	11.27
	7-10 years	9	2	11	12.68	2.82	15.50
	Above 10 years	25	3	28	35.21	4.22	39.43

In relation to work experience, Table 2b is shows that 63.39% of the respondents were 3 and above three years. This implies that the respondents of the university had adequate understanding of how their university is working to attain its objective. And 36.62% of the respondents were work experience of 1-2 years in the university. The majority 15.5% and 39.43% of the respondents had worked for 7-10 and greater than 10 years respectively have work experience in other organization while 21.13% and 11.27% of the respondents were experience of 1-3 and 4-6 years respectively in other organizations.

4.2 Planning and Organizing for BPR

4.2.1 The Driving force

As all employees are aware of the processes to which they belong, they may have a greater sense of responsibility.

The effectiveness of the intended change depends on the extent to which people understand and recognize its purpose. The three driving forces by (Hammer and Champy ,1993)as : customers,

competition and change. Customers, competition, and change have created a New World for business, such that organisations designed to operate in one environment are inadequately equipped to operate well in another. The number 1, 2, 3, 4, 5, 6, and 7 indicate the powerfulness of the driving force i.e. 1 is the most powerful and 7 is relatively list. The following table summarizes the pressures/forces/reasons that make it happen.

Table 3. Initiators/forces/reasons of BPR

No	Initiators	Respondents														Peax 2	Sign (2- taile d)
		Leaders							Job performers								
		Rank							Rank								
		1st	2 nd	3 rd	4 th	5 th	6 th	7 th	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th		
1	To re-invent the way they do work to satisfy their costumers	70	15	10	5	-	-	29.4	17.6	21.6	7.8	9.8	11.8	2	11.78	0.067	
2	To be competitive	30	15	10	5	30	10	19.6	11.8	41.2	7.8	7.8	7.8	3.9	12.8	.046	
3	To Survive and be Success full in the long term	30	15	50	5	-	-	19.6	11.8	5.9	7.8	11.8	39.2	3.9	27.22	0.000	
4	Government reform need	35	40	5	10	10	-	33.3	19.6	13.7	3.9	11.8	5.9	11.8	7.85	0.249	
5	Customers needs and expectations	20	30	10	35	5	-	13.7	7.8	9.8	9.8	15.7	39.2	9.2	20.69	.004	
6	To cure systemic process and behavioural problems	25	15	5	10	5	35	3.9	11.8	17.6	9.8	5.9	7.8	43.1	8.64	0.195	
7	Stake holders need	20	25	20	-	25	5	9.8	9.8	29.4	23.5	9.8	17.6	26.28	0.000		

df=6, except row 5 df=7

In the above Table the driving forces/ pressures/ reasons for initiated BPR in the university were ranked by leaders and job performers. According to leaders; To re-invent the way they do work to satisfy their costumers, Government reform need, To Survive and be Success full in the long term, Customers needs and expectations, To be competitive, and Stake holders need were ranked 1st, 2nd, 3rd, 4th, 5th, 6th and 7th respectively and according to job performers; Government reform need, To re-invent the way they do work to satisfy their costumers, To be competitive, Stake holders need, Customers needs and expectations, To Survive and be Success full in the long term, and To cure systemic process and behavioural problems were ranked as 1st, 2nd, 3rd, 4th, 5th, 6th and 7th

respectively. This implies both respondents had the reason for the change occurred in their university.

Pearson chi-square for the Significance of the Difference between the two groups was done to check the agreement level of the two groups of respondents. The result obtained showed that with the exception of item 1,4 and 6 the p-value are less than 0.05 and, therefore, the difference between the two group of respondents is statistically significantly different at 95 percent confidence interval. This implies that there was no agreement between the responses given by the respondents of the two groups with regarding: To be competitive, To Survive and be Success full in the long term, Customers needs and expectations, and Stake holders need. Hence, reasons/pressures/forces that make reengineering to happen be might not be well recognized by both groups of respondents. This might be come from lack knowing the knowledge and concept of BPR and the dynamic nature of world of work.

On the other hand, with regarding item 1,4 and 6 degree of freedom at 95 percent confidence interval, the associated p-values were found to be greater than 0.05. This implies that there was an agreement between the responses given by the two respondents or is not statistically significantly different between the two groups in perception regarding government reform needs, to re-invent the way they do work to satisfy their costumers, and to be competitive in the university.

Moreover, according to interview guide with leaders said that the reason that initiated BPR in the university is that. Business Process Reengineering (BPR) which will be taken up as a tool for institutional transformation. Business process Re-engineering as a means of dramatic improvement of services in terms of quality, time cost, etc., which helps to design new process that transforms DDU into one which challenges the existing assumptions, way of doing things, organizational structure and all traditional approaches of service delivery. Another aspect of reengineering a process is to see and compare how 21st century universities act to deliver their services and how DDU is doing vis a vis customers and stakeholders interest and expectation. And it is obvious that to meet and exceed the current need and expectation of the customers.

4.2.2 Organizational readiness

Ensuring organizational readiness for change is a pre- requisite to engage to a change process leading to success. Some of the readiness factor leading to success include: having clear vision about the change, leadership commitment, staff supportive for change, organizational self assessment, staff willingness to learn, and effort of allocating resources to support change. Table 7

below summarizes the responses of leaders and the job performers on the readiness level of the DDU related with the above readiness factors.

Table 4. The readiness factors of BPR

No	Items	Respondents						t-test	Sign(2-tailed)
		Leaders			Job performers				
		N	Mean	Standard deviation	N	mean	Standard deviation		
1	Clear vision	20	4.15	1.14	51	4.18	1.05	-0.93	0.93
2	Leadership commitment	20	3.95	1.27	51	2.5	1.27	4.29	0.000
3	Staff supportive for change	20	3.1	.97	51	3.82	1.21	-2.39	0.02
4	Organizational self assessment	20	3.35	.99	51	3.4	.92	-0.25	0.80
5	Staff willingness to learn	20	3.4	.94	51	2.8	1.36	1.79	.076
6	Effort of allocating resources to support change	20	2.8	.89	51	2.6	1.29	0.55	0.59

Df = 69 , AV. mean < 3 low, AV. mean = 3 medium, AV. Mean > 3 high

As indicated in Table 4 both group of respondents rated organizational readiness for item No 2,3 and 4 as high (AV. Mean > 3). This implies that the university have a clear vision, staff supportive for change and organizational self assessment that leading to success and May properly fulfils the necessary pre-requisite for undertaking BPR.

According to (V. Thyagarajan and Ali Khatibi, 2004), for reengineering to be successful and a sustained change to occur, one of the ingredients must be present is Vision. A vision is required so that all will be aiming towards the same goal. Every one in the organisation must be able to visualise and see what is desired so that all significant decisions and actions will bring the organisation a little closer to that vision. Without a vision an organisation will be confused and unfocused.

On the other hand, in the same Table regarding item No. 6 both group of respondents rated the readiness factor as low(AV. Mean < 3). Resources include men, money, information, facilities and equipment necessary to achieve change. Without resources the people will become very frustrated with the mandate to change and the expectation will be seen as quite unrealistic. This implies that the university may not properly fulfil the necessary pre-requisite for undertaking BPR with regard to Effort of allocating resources to support change.

In connection to the above according to (Thomas, 1994; Cooper and Markus, 1995; Bashein et al., 1994) As BPR results in decisions being pushed down to lower levels, empowerment of both individuals and teams becomes a critical factor for successful BPR efforts since it establishes a culture in which staff at all levels feel more responsible and accountable and it promotes a self-management and collaborative teamwork culture. Empowerment means giving people the ability to do their work: the right information, the right tools, the right training, the right environment, and the authority they need. Information systems help empower people by providing information, tools and training, but this may not be well done in the university.

For the readiness factor item No.1 and 5 the leaders were rated as high (AV. mean >3), but Job performers were rated as low (AV. Mean <3). This implies there is a problem of leadership commitment, Staff willingness to learn the new change in the university.

The problem of staff willingness to learn, is due to it may be lack effective communication, the effect of traditional work culture and resistances. In connection to this, Different authorities have identified different reasons why people resist change. For instance, uncertainty threatened self interest, different perceptions, and feeling of loss (Griffin, 2000); rational reasons like additional work load, risk of criticism, uncertainty and interference with existing plans; and irrational reasons which have no obvious basis so that difficult to identify. Paradigm changes cause such unconscious resistance like rejecting new ideas with out careful consideration or unwillingness to recognize the influence of the change.

(Hammer and Champy, 1993)Commitment and leadership in the upper echelons of management are often cited as the most important factors of a successful BPR project. Leadership has to be effective, visible and creative in thinking and understanding in order to provide a clear vision of the future. This vision must be clearly communicated to a wide range of employees who then become involved and motivated rather than directly guided, Commitment to the change must constantly be secured from senior management throughout a BPR project. But this is not well effective in the university.

Therefore, regarding the above assumptions and others the university may be inadequate in changing the traditional work culture, attitude, values, etc of the job performers.

T-Test for the Significance of the Difference between the Means of Two Independent Samples. A t-test was done to show the agreement level of the two groups of respondents. The result obtained reveal that, with the exception of items 2 and 3 the p-value are greater than 0.05 and, therefore, the difference between the two means is not statistically significantly different from zero at the 5% level of significance/at 95% confidence interval , i.e. there was an agreement between the response

given by the respondents of the two group. However, in items 2 and 3 p-value is 0.000 and 0.02 respectively which is less than 0.05 and, therefore, the difference between the two means is statistically significantly different in response of the two groups. For item 3 the responses of job performers are spread out over a large range of values than leaders (standard deviation of job performers (1.21) grater than standard deviation of leaders (.97))

4.3 Planning, Understanding the current process, and Redesign phase are the primary activity before embarking in BPR implementation.

4.3.1 Planning phases of BPR

Planning and Preparation are vital factors for any activity or event to be successful and reengineering is no exception. Before going to implementation phase planning the primary activity in undertaking BPR projects and also before attempting reengineering, the question 'Is BPR necessary?' should be asked? There should be a significant need for the process to be reengineered. The other phases of BPR depend on what we build at this stage.

Table below summarizes the responses of leaders and the job performers on the planning phases BPR in DDU related with the planning activities.

Table 5.Planning activities of BPR

No	Items	Respondents						t-test	Sign(2-tailed)
		Leaders			Job performers				
		N	Mean	Standard deviation	N	mean	Standard deviation		
1.1	Planning and preparation for BPR projects	20	4.05	1.23	51	4.11	1.26	-.205	.838
1.2	Develop vision and strategic objective	20	3.95	1.32	51	3.71	1.14	.778	.439
1.3	Top management create conducive environment for reengineering to occur	20	3.25	.91	51	2.98	1.10	.969	.336
1.4	Identified the customer driven objectives.	20	3.8	1.01	51	3.45	1.05	1.279	.205
1.5	Integration of BPR strategic planning in to the strategic vision of the organization.	20	3.4	.88	51	3.86	1.11	-1.662	.101

Df = 69, AV. mean < 3 low, AV. mean = 3 medium, AV. Mean > 3 high

AS indicated in table 5, with the exception of item 1.3 both group of respondents rated the planning activities for item No 1.1,1.2,1.4 and 1.5 as high (AV. Mean > 3). This implies that in the university customer driven objectives were identified, the vision and strategic objectives were developed, and BPR strategic planning were integrated in to the strategic vision of the organization

and attention is given to the planning and preparation of BPR. Moreover it accelerates the implementation of BPR. However, regarding item 1.3 leaders were rated as high (AV.mean=3.25, but job performers were rated as low (AV.mean=2.98). this implies the top management may not effectively create a conducive environment for reengineering to occur.

A t-test was done to check the agreement level of the two groups of respondents. The result showed that at 95 percent confidence interval the associated p-values found to be grater than 0.05 and there fore it is not statistically significance difference between the two groups. This implies that there was an agreement between responses given by the respondents of the two groups.

4.3.2 Understanding As is process

Before the reengineering team can proceed to redesign the process, they should understand the existing process. Understanding process is the foundation on which the redesign phase is builds on. According to (Muthu et al., 1999) As-Is processes refers to the current processes that take place in an organization. Before the reengineering team can proceed to redesigning the process, they should understand and formally document the existing processes.

Table 6 below summarizes the extent to which the university has done the understanding activities, given by the respondents of the two groups with regard to the listed activities.

Table 6. Understanding activities of BPR.

No	Items	Respondents						t-test	Sign(2-tailed)
		Leaders			Job performers				
		N	Mean	Standard deviation	N	mean	Standard deviation		
2.1	Define and Identify	20	3.80	1.19	51	3.8	.98	-.014	.99
2.2	Identity process active	20	4.3	0.87	51	3.94	1.26	1.17	.25
2.3	Set Performance goals	20	3.45	1.28	51	3.63	1.17	-.56	.58
2.4	Measure current performance and	20	3.9	1.07	51	3.28	1.19	2.43	.018
2.5	Identity Sources of pathologies and deter	20	3.5	1.10	51	3.09	.82	1.76	.082
2.6	Develop value driver understanding	20	3.2	1.19	51	3.5	.99	-.91	.37
2.7	Problems of Customers /Stake	20	4.05	1.09	51	3.61	.94	1.7	.094
2.8	Level of Satisfaction identification with the	20	3.05	.76	51	3.24	1.12	-.68	.50
2.9	Understand and for	20	3.5	1.00	51	3.2	.99	1.21	.23
2.10	The processes that need to be reengineer	20	4.05	1.15	51	3.4	.81	2.66	.010

Df = 69, AV. mean < 3 low, AV. mean = 3 medium, AV. Mean > 3 high

As shown in table 6, both group of respondents replied that with regard to the item listed as high (AV.mean>3). This implies that the understanding phases were well done. The main objective of this phase is to identify disconnects (anything that prevents the process from achieving desired results and in particular information transfer between organizations or people) and value adding processes and also done in DDU. Hence it accelerates to redesigning phase.

According to the interview guide from top executives and team leaders with regard to “To what extent the core process and supportive process identified in the university?” they responded as currently the University exercised Business Process by classifying the process as 2 major core process and 4 supportive process i.e. The core process are Teaching-Learning, Technology and Research. Where as the supportive process include; Resource Generalization, Compound service, Human Resource Management and Student Services. Each core process and supportive process were broken down to many sub- process activities and for each selected processes, a set of performance goals were developed.

In connection to these issues, as it was observed from the documents of BPR in the understanding phases team employed various techniques to understand the existing situation of the process and to identify the need and expectation of customers. Some of the techniques were: Brainstorming, Interviews, Questionnaire, Literature review and personal experiences. Thus the university give much emphasis was given on understanding As IS processes.

A t-test was done to check the agreement level of the two groups of respondents. The result showed that with the exception of item 2.4 and 2.10 at 95 percent confidence interval the associated p-value were found to be greater than 0.05 implying that there is not statistically significant difference between the responses of the two groups. However, with regard to items 2.4 and 2.10 since p-value is less than 0.05 and there fore, there is statistically significant differ between the responses of the two groups. Because the responses of leader were spread out over a large range of values than job performers (the calculated standard deviation from mean of leaders grater than job performers) implying that the two activities were more exaggerated by leaders.

4.3.3 Design To Be process

At this stage, depending on the customer requirements and the capabilities of the current process, either the current process will be reengineered for breakthrough improvement or, if the current process can't deliver the requirement, a new process that can deliver the customer-needs will be designed from a blank sheet of paper.

Table 7, below summarizes the extent to which the university has done the redesign activities, given by the respondents of the two groups with regard to the listed activities.

Table 7. Designing activities of BPR.

No	Items	Respondents				T	Sign(2-tailed)
		Leaders N=20		Job performers N=51			
		Mean	Standard deviation	Mean	Standard deviation		
3.1	Benchmarking the process – Bench Marking	2.85	1.27	2.9	1.45	-0.141	0.89
3.2	Develop a clean slate process design	3.65	0.95	3.61	1.00	0.168	0.867
3.3	Identify IT and Organizational implication for new process	3.9	0.91	3.35	1.18	1.863	0.067
3.4	Generate redesign initiatives.	3.75	0.91	3.61	1.06	0.528	0.59
3.5	Specify changes required in practices, organizational structures and information system	3.95	0.78	3.51	0.88	1.966	0.053
3.6	Identify the performance criteria for redesign process	2.05	0.95	2.09	0.81	-0.215	0.83
3.7	Model and validate the “to be” process	3.65	0.88	3.78	0.97	-0.541	0.59
3.8	Estimate the performance of redesign process	3.7	1.13	3.14	1.09	1.93	0.058

Df = 69, AV. mean < 3 low, AV. mean = 3 medium, AV. Mean > 3 high

As indicated in Table 7, both groups of respondents replied to the items listed as high (AV.mean>3) except items 3.1 and 3.6. This implies that the redesigning phases were well done. However, as it is observed in item 1 of the same table both respondent groups rated as low (AV.mean<3). This implies that in DDU the understanding activity of Benchmarking the process – Bench Marking was not well done.

According to (Jones, 1995) explained how benchmarking helps to identify and eliminate non value- added work. Benchmarking is a popular technique that an organization/ a company can use to compare its performance with other best-in-class performing organization/ companies in similar industries. Combining benchmarking and reengineering ensures that the best practices are in use and helps a firm seek out and eliminate steps that waste resources. Benchmarking is the comparison of core process performance with other components of the organization (internal benchmarking) or with leading organizations (external benchmarking). There fore, benchmarking is a key tool for performance improvement because it provides "real world" models and reference points for setting ambitious improvement goals. But DDU in contrary to this processes.

A t-test was done to check the Significance of the Difference between the two respondents. The result obtained indicate that at 95 percent confidence interval the associated p-value can be

As indicated in Table 8 above, both respondents groups replied to all items except 2.7, 2.9, and 2.14 listed above as good (AV.mean>3). This implies that the preparations of implementation phase were well done. However, for items 2.7, 2.9, and 2.14 were rated as high (AV.mean >3) and low (AV.mean <3) by leaders and job performers respectively. This may be the leaders were biased to them selves to disclose their limitations or it may be a communications gap between leader and job performers. Thus the implementation activities of Establish problem resolution process, Necessary preparation for pilot testing, and Plan to manage the change process were poor or not well done.

A t-test was employed to check whether the two groups are statistically significant or not. The result showed that with the exception of items 2.6, 2.7, 2.9 and 2.14 at 95 percent confidence interval the associated p-values found to be grater than 0.05 and there fore it is not statistically significance difference between the responses of the two groups.

II. What was implemented and to what extent it was implemented by BPR summarized by respondents of the two groups by 5= very good, 4= good, 3=fair, 2= poor, 1= very poor to the following listed activities in the University

Table 9. Implemented activities of BPR

No	Items	Respondents				t-test	Sign(2-tai)
		Leaders N=20		Job perform N=51			
		M	SD	M	SD		
1	Tangible goals and objectives developed based up on the vision	3.95	.99	4.02	.96	-.274	.785
2	Reengineering opportunities are identified and prioritized	4.25	.079	3.84	.83	1.879	.065
3	Core processes have been defined and mapped	4.3	.80	3.77	1.07	2.02	.047
4	New measurements methods analyzed and selected and	3.95	.83	3.37	.87	2.55	.013
5	Projects are selected for pilot testing and pilot testing conducted	2.6	.82	2.49	1.16	.388	.690
6	Design team members are trained in process analysis a	4.2	.83	3.98	.93	.922	.359
7	BPR communication program developed message delivered and communication effectiveness assessed.	3.75	.97	2.73	1.2	3.40	.001
8	It support for BPR process created.	3.45	.89	3.82	.87	-1.6	.109
9	Final readiness assessment for implementation conducted.	2.75	.91	2.51	.78	1.11	.271
10	Organize wide and process specific vision developed	4.1	.912	3.61	.89	2.07	.042
11	Potential implementation barriers identified and ways	3.4	1.19	2.02	.84	5.53	.000
12	Tasks are performed as a teams and organized as proc	4.1	.72	4.08	.96	.091	.928
13	Bureaucratic structure is minimized	3.25	1.02	2.09	1.12	3.99	.000
14	The use of IT in teaching-learning processes and research were integrated	3.5	1.24	3.26	.94	.905	.369

Df = 69, AV. mean < 3 low, AV. mean = 3 medium, AV. Mean > 3 high

As indicated in Table 9, both groups of respondents replied to the items listed as high (AV.mean>3) except 5, 7, 9, 11, and 13 items. This implies that with regard to items 1, 2, 3, 4, 6, 8, 10, 12, and 14 were good implemented. However, both group of respondents replied to items 5, 7 and 9 as low (AV.mean<3). This implies pilot testing, BPR communication program developed message delivered and communication effectiveness assessed and Final readiness assessment for implementation were not conducted.

According to review literature, Pilot testing is an effective--and usually necessary--tool for moving the organization successfully to full implementation. Regarding how to implement a successful pilot testing and enhance people's commitment,(Lidon, 1994) stated that, if an organization is committed to change and use a pilot to learn how its change will work, it needs to involve man people, not just those in a pilot. To change an organization, the more people you can involve and the faster you can help them understand how the system works and how to take responsibility for making it work better, the faster will be the change. But in DDU this is not conducted, there fore it affect the full-scale implementation of BPR in the university.

On the other hand, with regard to items 7, 11 and 13 job performers responded as low (AV.mean <3) and leaders responded as high (AV.mean >3). This implies that the leaders may be biased to themselves or a communication gap between leaders and job performers. Organizational structure should be flexible enough to enable BPR in terms of its encouraging creativity and innovativeness in the organization. Therefore, the need for less bureaucratic and more participative organization is obvious (Ahmad et al, 2007). (McAdam ,2003) suggested that organizations should implement less bureaucracy to avoid failure of BPR implementation. But in DDU Bureaucratic structure may not be minimized.

A t-test was employed to check whether the two groups are statistically significant or not. The result showed that with the exception of items 3, 4, 7, 10, 11, 13 at 95 percent confidence interval the associated p-values found to be grater than 0.05 and there fore, this implies that it is not statistically significance difference between the responses of the two groups.

4.4 The Evaluation of BPR Implementation

A process cannot be reengineered overnight. A very vital part in the success of every reengineering effort lies in improving the reengineered process continuously. The first step in this activity is monitoring. Two things have to be monitored – the progress of action and the

results. Performance monitoring and measuring is useful in BPR implementation to make appropriate adjustments while necessary in the processes.

The following Table summarizes the responses of the two groups with regarded to the listed activities by rating: 5= strongly agree, 4 = Agree, 3 = undecided, 2 = disagree, 1 = strongly disagree

Table 10.The evaluation activities of BPR implementation

No	Items	Respondents				t-test	Sign(2-tailed)
		Leaders N=20		Job perform N=51			
		Mean	SD	Mean	SD		
1	Guided by Monitoring and evaluated plan	2.8	1.06	2.35	1.25	1.416	.161
2	The Performance can be evaluated in quantitative or qualitative aspects.	3.05	1.36	2.18	1.28	2.550	.013
3	The feed back from customers provides the opinions on the quality of products and service delivered	3.05	1.23	3.18	1.55	-.327	.745
4	The workers can provide on the benefits or deficiencies of the redesigned process	2.95	1.15	2.57	1.38	1.099	.276
5	The management should compare the result with the objectives and goal previous set	3.85	.875	2.82	1.37	3.110	.003
6	The progress of action and the result are monitored	2.85	.988	2.45	1.15	1.361	.178
7	The management should provide care for those who can not adapt	4.1	.968	3.26	1.51	2.320	.023
8	Continual improvement mechanism was introduced.	2.5	1.38	2.86	1.47	-.955	.343

Df = 69, AV. mean < 3 low, AV. mean = 3 medium, AV. Mean > 3 high

As indicated in table 10, both group of respondents were rated high (AV.mean >3) only for items of 3 and 7. This implies that the management should provide care for those who can not adopt and the feed back from customers provides the opinions on the quality of products and service delivered.

Since, customers are the real users of the business process; their satisfaction with the new process is an important index for evaluating the success of a BPR project. However, both group of respondents were rated as low (AV.mean <3) for items 1, 4, 6, and 8. This implies that the emphasis given to monitoring and evaluation of BPR was less. Since both disagreed with the accomplishments of the activity 1, 4, 6 and 8

On the other hand, from items 2 and 5 of Table 10, for both items were rated as high (AV.mean >3) and low (AV.mean <3) by leaders and job performers respectively. This might be the leaders disclose their limitations or they were biased to themselves.

A t-test was employed to check whether the two groups are statistically significant or not. The result showed that with the exception of items 2, 5, and 7 at 95 percent confidence interval the associated p-values found to be greater than 0.05 and therefore it is not statistically significant difference between the responses of the two groups. In the same table, for items 2 and 5 the response given by the two groups were different (p-value less than 0.05) because of the above mentioned reasons. But for item 7 both groups rated as high (AV.mean >3) and the response given by the two groups were different (p-value less than 0.05). This implies the responses given to item 7 were more exaggerated by leaders because the responses of the leaders were more clustered closely around the mean.

4.5 Achievements or Benefits of Business Process Reengineering

BPR brings numerous benefits to organizations and companies in which it is implemented. Successful BPR projects may lead to several benefits in different areas of business concerns such as customer satisfaction, time to market, time to service, empowerment of human resources, and effective management. Management usually misses the proper consideration of the benefits of BPR (Rai and Paper, 1994), leading to reduction in their interest and commitment to BPR efforts.

Table 11 below summarizes the responses of leaders and the job performers on the achievement level of BPR with regard to the listed benefits by (Rating: 5= highly improved, 4= improved, 3= some what improved, 2= less improved, 1 = not improved).

Table 11. Achievement of BPR implementation

No	Items	Respondents						t-test	Sign(2-tailed)
		Leaders			Job performers				
		N	Mean	SD	N	Mean	SD		
1.	Increase effectiveness								
1.1	Customer satisfaction	20	3.8	1.15	51	2.8	.83	4.075	.000
1.2	Deliver high quality	20	3.25	.95	51	3.00	1.22	.831	.409
2	Improvement Organizational approach								
2.1	Provide more meaning full work for employees	20	3.45	1.09	51	3.41	1.17	.126	.900
2.2	Increase flexibility and adoptability to change	20	3.00	1.07	51	2.98	1.29	.060	.952
3	Improvement Efficiency								
3.1	Reduce time optimization	20	3.25	1.02	51	3.00	.96	.971	.335
3.2	Provide quick response to customer	20	3.05	.83	51	3.12	1.07	-.254	.800
3.3	One stop shop service delivery	20	2.9	1.17	51	2.63	1.08	.938	.352
4	Organization Structure								
4.1	Hierarchical level reduction	20	3.2	1.06	51	2.69	1.01	1.904	.061
4.2	Reduction of controls	20	3.25	1.21	51	2.92	.96	1.207	.232
4.3	Enable new business growth	20	3.25	1.02	51	3.26	.91	-.020	.984

Df = 69, AV. mean < 3 low, AV. mean = 3 medium, AV. Mean > 3 high

As indicated in Table 11, both group of respondents were rated high (AV.mean >3) for items of 1.2, 2.1, 3.2, and 4.3, AV.mean <4. This implies that the achievement of BPR were to some what improved with regards to: Deliver high quality. Provide more meaning full work for employees. Provide quick response to customer, and Enable new business growth. however, both groups of respondents were rated as low(AV.mean <3) for item 3.3 .this implies One stop shop service delivery i.e. where customers get all public services in one place at low cost were less improved.

On the other hand, for items 1.1, 2.2, and 4.1 were rated as high (AV.mean >3) and low (AV.mean<3) by leaders and job performers respectively. This might have been aroused from the fact that leadership seems to be biased or hesitating to disclose their limitations in this regard.

A t-test was employed to check whether the two groups are statistically significant or not. The result showed that with the exception of items 1.1 at 95 percent confidence interval the associated p-values found to be grater than 0.05 and there fore it is not statistically significance difference between the responses of the two groups.

In connection to this according to the interview guide with customers were asked what are the improvement efficiency, improvement organizational approach and increase effectiveness in the university according to your observation? They said that speed of service delivery and providing key response to customers were to some extent improved especially in registrar office. One of the instructor said that to getting any material resources impossible, unless you meet the presidents but now it was to some extent improved because of employee's empowerment. The others responded that BPR implementation in DDU was not as explained/ reported by media the implementation of BPR was poor.

4.6 Key Success Factors for BPR implementations

Following the publication of fundamental concepts of BPR by (Hammer, 1990) and (Davenport and Short, 1990) many organization have reported dramatic benefits gained from the successful implementation of BPR. However, despite the significant growth of the BPR concept, not all organization embarking on BPR projects achieve their intended result. (Hammer and Champy ,1993) estimate that as many as 70% of the projects do not achieve the dramatic results they seek. BPR has a great potential for increasing productivity through reduced process time and cost, improved quality, and greater customer satisfaction, but it often requires a fundamental organizational change. As a result the implementation process is complex, and need to be checked against several success factors to insure successful implementation, as well as to avoid implementation pitfalls.

The following Table12a and 12b summarizes responses of the respondents to what extent each of the key success factors existed in the university and contributed to their success of reengineering effort by Rate them 5= strongly agree, 4= agree, 3= undecided, 2= disagree, 1= strongly disagree.

Table 12a. Activities of key success factors

No	Items	Respondents				t-test	Sign(2-tailed)
		Leaders N= 20		Job perform N= 51			
		Mean	SD	Mean	SD		
1	Change Management System and Culture						
1.1	Acceptance of newly designed processes and structure	3.3	0.87	2.88	1.07	1.555	.124
1.2	Effective communication	3.7	.87	2.31	.95	5.674	.000
1.3	All people must be openly and actively involved and should be consulted at all stage of the process	3.5	.76	3.51	.76	-.049	.961
1.4	Creating an effective culture for organizational change	3.45	.83	3.43	.83	.085	.932
1.5	Empowerment and motivation system	3.05	.99	3.06	.95	-.035	.972
1.6	Revising reward	3.3	1.26	3.29	1.21	.018	.985
2	Organization Structure						
2.1	Effective BPR Cross functional teams	3.65	.75	2.57	1.01	4.357	.000
2.2	Integrating BPR with other improvements approach	3.3	.73	3.31	.71	-.073	.942
2.3	Adequate identification of BPR Values	3.4	.94	3.43	.94	-.126	.900
2.4	Appropriate Job definitions and allocation of responsibilities	3.45	1.05	3.47	1.07	-.074	.942
2.5	Adequate job integration approach	3.4	.82	3.41	.80	-.055	.956
2.6	Aligning BPR Strategy with corporate strategy	3.5	.83	3.53	.86	-.131	.896

Table 12 b. Activities of key success factors

No	Items	Respondents				t-test	Sign(2-tailed)
		Leaders N=20		Job perform N=51			
		Mean	SD	Mean	SD		
3	BPR Project Management						
3.1	Effective Planning and Use of Project management techniques	3.25	0.91	3.37	1.04	-.452	.645
3.2	Adequate recourses	2.4	.94	2.47	.95	-.283	.778
3.3	Setting performance goals and measures	3.45	.95	3.41	.92	.156	.876
3.4	Effective use of consultants	2.6	1.35	2.61	1.37	-.022	.983
3.5	Appropriate use of methodology	3.60	.82	3.59	.82	.054	.957
3.6	Effective process redesign	3.7	.80	3.71	.78	-.028	.977
4	Management Competency						
4.1	Committed and strong leadership	3.15	1.35	2.67	1.21	1.465	.147
4.2	Effective management of risks	3.75	1.11	2.39	1.20	4.365	.000
5	IT Infrastructure						
5.1	Building an effective IT infrastructure	3.3	1.17	3.29	1.10	.020	.984
5.2	Selecting an IT Application	3.75	1.02	3.65	1.06	.373	.710
5.3	An adequate understanding of technologies for redesigning business	3.10	1.07	3.51	1.07	-1.45	.150
5.4	An effective IT Infrastructure follows a top down approach	3.15	1.31	2.65	1.35	1.421	.160

Df = 69, AV. mean < 3 low, AV. mean = 3 medium, AV. Mean > 3 high

As indicated in table 12a and 12b, both group of respondents were rated with the exception of 1.1, 1.2, 2.1, 3.2, 3.4, 4.1 and 4.2 as high (AV.mean >3) and also AV.mean < 4. Both group somewhat agree with the success factors of BPR implementations in the University. This implies that key success factors did not contribute as expected to the success of BPR implementation in their university. However, both group of respondents were rated as low

(AV.mean <3 and greater than 2) for items 3.2 and 3.4. Both groups disagree with the success factors of adequate resource and Effective use of consultants.

On the other hand, for items 1.1, 1.2, 2.1, and 3.4 were rated as high (AV.mean >3) and low (AV.mean <3) by leader and job performers respectively. This might be the leaders did not considered them selves as an agent of change because of it might be hesitate to disclose their limitations.

A t-test was employed to check whether the two groups are statistically significant or not. The result showed that with the exception of items 1.2, 2.1, and 4.2 at 95 percent confidence interval the associated p-values found to be grater than 0.05 and there fore it is not statistically significance difference between the responses of the two groups. However, for items 1.2, 2.1 and 4.2 the response given by the two groups were different (p-value less than 0.05). This might be the above reason.

Moreover, according to Semi- structured interview guide form implementation team leaders and top executives, they responded as the major success factors of BPR implementations in the University was (1) communication (2) the use of external consultant from Adama University (3) training the employees (4) Empowerment of employees (5) motivation (6) Political commitment from government's side to deliver quality service (7) leaders commitment. In the FGD, the above idea is to some extent supported by process owners.

4.7 Challenges of BPR implementations

Implementing BPR in university or in any other business is not an easy task. Certainly, it will be hampered by barriers, which lead in many cases, to failure. Barriers are not easy to discover, to detect and to overcome. According to Schumacher (no date): 'Barriers are severe, unexpected and not planned for Business Reengineering Projects. Barriers increase the impact of project risk factors'.

Barriers impede application of BPR. If those barriers consume high energy and time, it is not recommended to perform Reengineering Project (Schumacher, no date). Also, 'it is highly recommendable not to pitch success factors hard against barriers, but rather to prevent the development of barriers right form the beginning of the project (Schumacher, no date).' Lack of committed leadership, unmotivated people, and organization culture are amongst the top barriers to successful BPR efforts (Bechdol, 1995).Table 13a and 13b below summarizes the

challenges/ barriers of BPR in DDU, given by the respondents of the two groups with regard to the listed challenges/ barriers.

Table 13a. Challenges of BPR implementation

No	Items	Respondents						t-test	Sign (2- tail)
		Leaders N=20			Job performers N=51				
		Mean	SD	Ran	mean	SD	Ran		
1	Lack of knowledge abou	6.15	0.81	1	5.73	1.25	1	1.40	.165
2	Affected people not info	3.05	1.39	14	3.78	1.25	16	-2.15	.035
3	Following inadequate ap	3.9	1.48	10	4.06	1.43	15	-.42	.68
4	Lack of organization rea	3.8	2.01	11	4.14	1.64	13	-.73	.47
5	Lack of trust between ma	3.8	1.96	11	4.8	2.08	7	-1.86	.067
6	Resistance by middle ma	5.5	1.28	5	4.75	1.56	8	1.92	.059
7	Undefined core process	1.85	1.18	20	2.14	1.06	19	-.99	.323
8	Problem in communicate	4.85	1.46	6	4.57	1.46	11	.731	.468
9	Lack of commitment fro	2.15	.88	19	5.35	1.41	3	-9.44	.000
10	Vertical structure of orga	3.3	1.62	15	4.09	1.83	14	-1.71	.092

Table 13b. Challenges of BPR implementation

No	Items	Respondents						t-test	Sign (2- tail)
		Leaders N=20			Job performers N=51				
		Mean	SD	Ran k	Mean	SD	Ran k		
11	Top management fear of empowered employees	2.9	1.71	17	4.78	1.63	8	-4.32	.000
12	Using inappropriate tools	3	1.56	16	2.73	1.33	18	.75	.458
13	Employees resistance to	5.95	1.23	2	5.18	1.96	4	1.64	.105
14	Unwillingness to share risk equitably	4.15	1.27	9	4.78	1.67	7	-1.54	.129
15	Bureaucracy	3.55	2.46	12	4.77	1.66	9	-2.41	.019
16	Fear of losing jobs by employees	4.7	1.38	7	5.39	1.48	2	-1.80	.076
17	Fear of failure by top management	3.15	2.23	13	4.75	1.53	10	-3.45	.001
18	Inappropriate benchmarking (goals)	5.85	1.18	4	4.41	2.14	12	2.84	.006
19	Rapid change of external	5.75	1.72	2	5.14	1.65	5	1.39	.168
20	Lack of resources (time, money, staff, etc.)	4.2	2.09	8	4.83	1.39	6	-1.23	.222
21	Believing that change doesn't add value to sha	2.2	1.05	18	2.88	1.21	17	-2.2	.030

Df = 69, AV. mean < 3 low, AV. mean = 3 medium, AV. Mean > 3 high

As indicated in Table 13a and 13b, according to BPR leaders: Lack of knowledge about BPR, employee resistances, rapid change of external environments, Inappropriate benchmarking (goals), Resistance by middle managers because of fear of losing their jobs, Problem in communication, Fear of losing jobs by employees, Lack of resources (time, money, staff, etc.), Unwillingness to share risk equitably, Following inadequate approach were ranked as 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th and 10th respectively the top ten strongest/highest (AV.mean>3) challenges of BPR implementations. However, undefined core processes, Lack of commitment from top management, believing that change doesn't add value to shareholders, Top management fear of empowered employees, using inappropriate tools were ranked as 20th, 19th, 18th, 17th and 16th respectively the least /low (AV.mean<3) challenges of BPR implementations.

In the same Table, according to the job performers: Lack of knowledge about BPR, Fear of losing jobs by employees, Lack of commitment from top management, Employees resistance to change, Rapid change of external environment, Lack of resources (time, money, staff, etc.), Lack of trust between management and employees, Unwillingness to share risk equitably, Top management fear of empowered employees, Bureaucracy, Resistance by middle managers because of fear of losing their jobs were ranked as 1st, 2nd, 3rd, 4th, 5th, 6th, 6th, 7th, 8th, 9th and 10th respectively the top ten strongest/highest (AV.mean>3) challenges of BPR implementations. However, undefined core processes, Using inappropriate tools, believing that change doesn't add value to shareholders, affected people not informed, Following inadequate approach were ranked as 19th, 18th, 17th, 16th and 15th respectively the least /low (AV.mean<3) challenges of BPR implementations.

Both group responded that, undefined core processes, using inappropriate tools, believing that change doesn't add value to shareholders were the list barriers in the implementation of BPR. While the strongest barriers were, Lack of knowledge about BPR, Employees resistance to change, Resistance by middle managers because of fear of losing their jobs, Lack of resources (time, money, staff, etc.), Unwillingness to share risk equitably, and rapid change of external environments.

A t-test was employed to check whether the two groups are statistically significant or not. The result showed that with the exceptions of items 2, 9, 11, 15, 17, 18 and 21 at 95 percent confidence interval the associated p-values found to be greater than 0.05 and therefore it is not

statistically significance difference between the responses of the two groups. This implies that both groups agree that employee resistances, Lack of knowledge about BPR, Resistance by middle managers because of fear of losing their jobs, Lack of resources (time, money, staff, etc.), Fear of losing jobs by employees, Rapid change of external environment, Unwillingness to share risk equitably were the strongest barriers of the implementation of BPR in the DDU.

In connection to this idea according to Maurer's (as cited in Waddell and Sohal, 1999) suggested that up to two thirds of BPR efforts' failures are due to resistance to change. Culture, resistance by middle managers, and employees and staff resistance amongst the top-five greatest obstacles (Change management success factors and obstacles, 2003). Although, Hammer and Stanton (1995) see the strongest barrier as lack of commitment from top management, resistance by middle managers, they conclude that Lack of knowledge about BPR to be one of the most 10 famous obstacles.

On the other hand, with regard to items 2,9,11,15,17,18 and 21, the associated p-value is found to be less than 0.05 implying that statistically significant differences between the responses of the two respondents. Lack of commitment from top management was ranked as 3rd by job performers and ranked as 19th by leaders, Top management fear of empowered employees was ranked 8th by job performers and ranked 17th by the leaders, Bureaucracy was ranked as 9th by job performers and 12th by leaders. This implying that it may be the leaders did not won't to speak/ accept that these challenges were occurred due to them and also it may be lack of effective communications, and lack trust between the leaders and job performers of the two groups.

4.8 Strategies to over come the challenges of BPR implementations

Challenging in implementing any change is natural in any organization. But overcoming/ solving the challenges is one of the key successes for achievement the intended results. The following Table summarizes the responses of the two groups of respondents with regard to some of the listed strategies to overcome the challenges of BPR.

In the same Table, concerning strategy 2, the majority of respondents i.e. 45% and 49% of leaders and job performers respectively responded as yes, implying that the University separated from old way of doing work same what good, However, 35% and 37.3% of leaders and job performers respectively responded as NO implying that the University was not completely separated from old way of doing work.

(4)20% of leaders and (7)13.7% of job performers were responded as I don't know. This show that it may be these respondents had no direction about the university. Because In order for change to be embraced, everyone must understood where the organization is today, why the organization needs to change, and where the organization needs to be in order to survive. Because BPR can potentially require significant changes throughout an organization, it must begin with a communications campaign to educate all those who will be impacted by this change. Communication to all levels of personnel must remain active from start to finish keeping everyone involved and working towards a common goal. Without a common understanding about what is happening, confusion and uncertainty about the future can result in resistance strong enough to stop any reengineering effort. BPR is most effective when everyone understands the need for change, and works together to tear down old business systems and build new ones.

In Table 17, concerning the provision of adequate training, 50% of leaders said yes and also 50% leaders responded as NO. This implies that the provision of adequate training in the university were fair. But according to job performers were responded as 56.9% responded as NO and 37.3%as yes. This implies that the provision of training in the university were not adequate.

As indicated in Table 14, the majority of the respondents 70% of leaders and 58.8% of job performers were responded as yes and 75% of leaders and 58.8% of job performers were responded as yes: 65% of leaders and 58.8 %job performers were responded as yes and also 80% leaders and 66.7% of job performers were responded as yes. These implies that Proper allocation of resources, Rewards based on results and disciplined approach, Improving the reengineered process continuously and Create a séance of urgency respectively were on the way to solve challenges of BPR implementation in the University.

A t-test was employed to check whether the two groups are statistically significant or not. The result showed that with all listed strategies at 95 percent confidence interval the associated p-values found to be grater than 0.05 and there fore it is not statistically significance difference between the responses of the two groups.

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMENDATIONS

The last part, chapter five, deals with the summary, conclusions and recommendations. In this section, first, brief summary on the general study and then major findings are presented. Second, conclusion the fundamental findings are made. Lastly, some possible recommendations are given on the basis of major findings of the study.

5.1 SUMMARY

As already mentioned the main purpose of this study was an assessment of Business Process Reengineering Implementation in Dire Dawa University. For this study four basic research questions were raised:

- 1 To what extent preparation were made for BPR and implemented in Dire Dawa University?
- 2 What are the barriers/challenges and the key success factors in Implementing Business Process Reengineering in Dire Dawa University?
- 3 What mechanisms have put in place to facilitate the implementation of BPR in the Faculties?
- 4 What are the benefits of Business Process Reengineering in Implementing BPR in Dire Dawa University?

The above basic questions were raised to meet the following objectives. Specifically: To assess the extent of preparation made for Business Process Reengineering (BPR) Implementation, To identify the degree of Business Process Reengineering (BPR) Implementation, To investigate the achievement in Implementing Business Process Reengineering (BPR), To identify mechanisms/strategies that the University exercised during the implementation of business process reengineering..

In an attempt to answer the above basic research questions the descriptive survey method is basically used. Data were gathered using questionnaires, semi-structured interview, and focus group discussion developed based on the review of the related literature. The subjects of the study were leaders (top executives, process owners, BPR team leaders) and job performers. A total of 82 questionnaire copies were distributed to respondents and 87% questioners were filled and returned. The data gathered were analyzed using spss like mean, standard deviation, two independent T-test, chi-square, frequency and percentage.

Characteristics of the Respondents

1. The majority of the respondents 59 (83%) were males. While the remaining 12(16.9%) were female.
2. Most of the respondents 56.34% in the university belong to the age group 30-39 From the total respondents 29.57% of young staff members, who are 20-29 years old; 12.68% respondents, who are 40-49 and 1.48%of respondents, who are 50-59. This shows that all respondents were above 18 employable ages in Ethiopia..
3. The majority of the respondents 50.7% were second degree holders or MA/MSC/MED holders. While the remaining were 23.94% first Degree, 22.53% Diploma and 2.82%PHD.
4. The majority of the respondents 71.84% were BPR teams/job performers. While the remaining were 8.45% and 15.49% process owners and BPR team leaders respectively.
5. The majority of the respondents 52.11% were trained/not enough. 5.63% of the respondents were not taking any training related to BPR. However, 40.84% of the respondents were took enough training related to BPR.
6. 63.39% of the respondents were 3 and above three years work experience, and 36.62% of the respondents were work experience of 1-2 years in the university. The majority 15.5% and 39.43% of the respondents had worked for 7-10 and greater than 10 years respectively have work experience in other organization while 21.13% and 11.27% of the respondents were experience of 1-3 and 4-6 years respectively in other organizations.

Major Finding

Preparation for BPR projects and implementations BPR

According to the finding revealed that the driving forces/ pressures/ reasons for initiated BPR in the university were not well recognized and understood by all employees.

Both group of respondents were rated organizational readiness for a clear vision, staff supportive for change and organizational self assessment that leading to success as high. On the other hand, both group of respondents rated the readiness factor for. Effort of allocating resources to support change for leadership commitment, Staff willingness to learn as low.

According to the finding revealed that understanding Both group of respondents rated the planning activities for Planning and preparation for BPR projects, develop vision and strategic objective. Identified the customer driven objectives., and Integration of BPR strategic planning

in to the strategic vision of the organization as high. But Regarding the planning activity for Top management create conducive environment for reengineering to occur leaders were poor According to the finding revealed that understanding As Is process with regard to: Define and Identify core process with maximum performance impact, Identity process activities, Set Performance goals, Measure current performance and identify performance gaps, Identity Sources of pathologies and determine causes, Develop value driver understanding, Problems of Customers /Stake holders Identification, Level of Satisfaction identification with the current performance, Understand and formally document the existing process, and The processes that need to be reengineered are identified as high. But Measure current performance and identify performance gaps and The processes that need to be reengineered are identified were some what not good.

According to the finding showed that the design To Be process: Identify IT and Organizational implication for new process; Generate redesign initiatives; Specify changes required in practices, organizational structures and information system; Develop a clean slate process design ; Model and validate the “to be” process; Estimate the performance of redesign process as high well done. On the other hand Benchmarking the process – Bench Marking and Identify the performance criteria for redesign process rated as low in the universities.

BPR project implementation and effectiveness

According to the finding showed that the implementation activities of: Develop the approach to implementation plan; Develop the Schedule, including review and check points; Identify the key resources and skill needed to implement the processes; Designate change management leadership were well done. In addition, Implement plan and process : Perform preparation for the process and system implementation; Train the users on the new process; Perform process measurements, as identified by the plan; Review the process and obtain staff feed back; Identification of all tasks to be done including time farness, milestones, and deliverable dates; Assignment of staff responsibilities for each task, training requirements; The establishment of appropriate committee for implementation; Develop a transition plan from the As-Is to the redesigned process, Management of change to organization culture, Manage to explicit performance objective; and Develop actual organizational change management program were some what good in the university. But the activities of Establish problem resolution process; Necessary preparation for pilot testing; Plan to manage the change process, BPR communication program developed message delivered and communication effectiveness assessed.; Potential implementation barriers identified and ways of overcoming

them designed and Bureaucratic structure is minimized job performers responded were poor.

Moreover, Tangible goals and objectives developed based up on the vision; Reengineering opportunities are identified and prioritized; Core processes have been defined and mapped; New measurements methods analyzed and selected and performance indicators developed for the new process ; Design team members are trained in process analysis and reengineering technique; It support for BPR process created; Organize wide and process specific vision developed ; Tasks are performed as a teams and organized as processes and The use of IT in teaching-learning processes and research were integrated as good.

The Evaluation of BPR Implementation

Both group of respondents were rated for activities of, the feedback from customers provides the opinions on the quality of products and service delivered, and the management should provide care for those who can not adapt as high. But Both groups of respondents were rated for activities of : Guided by Monitoring and evaluated plan; the workers can provide on the benefits or deficiencies of the redesigned process; the progress of action and the result are monitored and Continual improvement mechanism was introduced as low.

For activities of The Performance can be evaluated in quantitative or qualitative aspects and The management should compare the result with the objectives and goal previous set, for both items were rated as high and low by leaders and job performers respectively.

Achievements or Benefits of Business Process Reengineering

According to the finding the major benefits/ achievements are: Deliver high quality, Provide quick response to customer, and Enable new business growth. However, one stop shop service delivery, Customer satisfaction, Increase flexibility and adoptability to change, and Hierarchical level reduction as low in the university.

Key Success Factors for BPR implementations

According to the finding the key success factors that contributes for effective BPR implementation are: All people must be openly and actively involved and should be consulted at all stage of the process; Creating an effective culture for organizational change; Empowerment and motivation system; Revising reward; Integrating BPR with

other improvements approach; Adequate identification of BPR Values; Appropriate Job definitions and allocation of responsibilities; Adequate job integration approach; Aligning BPR Strategy with corporate strategy .

However, the success factors of adequate resource and Effective use of consultants, Acceptance of newly designed processes and structure; Committed and strong leadership; Effective communication; Effective BPR Cross functional teams; An effective IT Infrastructure follows a top down approach and Effective management of risks were not effectively contribute for the implementation of BPR in the university.

Challenges of implementations BPR

According to the finding showed that the strongest barriers were: Lack of knowledge about BPR, Fear of losing jobs by employees, Lack of commitment from top management, Employees resistance to change, Rapid change of external environment, Lack of resources (time, money, staff, etc.), Lack of trust between management and employees, Unwillingness to share risk equitably, Top management fear of empowered employees, Bureaucracy, Resistance by middle managers because of fear of losing their jobs. This come from the strategy to prevent the development of barriers right form the beginning of the project is poor in the university. Both groups of respondents were ranked the following challenges of BPR: Lack of knowledge about BPR; Employees resistance to change; Rapid change of external environment; Fear of losing jobs by employees; Lack of resources (time, money, staff, etc.); Unwillingness to share risk equitably; Resistance by middle managers because of fear of losing their jobs; Inappropriate benchmarking (goals), and Lack of trust between management and employees.

Strategies emplaced to over come the challenges Implementations of BPR

According to the finding the majority of leaders and job performers responded that among the strategies in place to alleviate challenges in BPR implementation the provision of adequate training, and separate from old way of doing work were poor in the university.

On the other hand Proper allocation of resources, Rewards based on results and disciplined approach, improving the reengineered process continuously and Create a séance of urgency respectively were on the way to solve challenges of BPR implementation in the University.

5.1 Conclusions

This study was conducted to assess the implementation of BPR in Dire Dawa University. It was concerned with the extent preparation were made for BPR projects and implemented, the barriers/challenges and the key success factors in implementing Business Process Reengineering, the mechanisms have put in place to facilitate the implementation of BPR, the achievements or benefits of Business Process Reengineering in Implementing BPR in the University under study. Therefore, based on the finding of the study, the following conclusions are drawn.

According to the finding showed that the reason why BPR was initiated in the university was not be understood and well recognized by all employees. This implies that the reason for BPR initiatives and its expected benefits have not be clearly communicated across the university and be supported by management, and also affect the attainment of radical change of BPR from the beginning. This may be emanated from, lack of knowing the knowledge and concepts of BPR and the dynamic nature of World of work.

The finding of the study revealed that the readiness made by university for effective implementation with regard to: Effort of allocating resources to support change, leadership commitment and staff willingness to learn were poor. This implies that no reengineering will actually happen and difficult to bring a radical change in the university because reengineering is succeeded only when driven from the top most level of an organization. This is due to lack of employee empowerment, lack effective communication, the effect of traditional work culture and resistances.

According to the finding showed that Planning, Understanding As Is process and Redesigning To Be process were to same extent good in the university. This implies the University may some what full- fill the necessary pre-request for the implementation of BPR, but the finding of the study revealed that top management creating conducive environments for reengineering to occur and the benchmarking process were poor. This implies that since the planning, understanding As Is process and redesign To Be process are a pre-request for the implementation of BPR so it affect the achievement of radical change. This may be emanated from lack of commitment and strong leadership from top executives because the top executives are the most agents of change.

The finding of the study showed that the implementation activities were some what done except necessary preparation for pilot testing, establishment of problem resolution process and

Plan to manage the change process were poor or not well done. These activities were an effective and usually necessary tool for moving the organization successfully to full scale implementation. And also pilot testing was not conducted, the development of BPR communication program and message delivered and the assessment of communication effectiveness, the identification of potential implementation barriers and way overcoming them and the minimization of bureaucratic structure were poor in the University. This implies that there is no radical change or dramatic change in the university rather it is incremental.

Performance monitoring and measuring is useful in BPR implementation to make appropriate adjustments while necessary in the processes. the finding of the study showed that monitoring and measuring activities of the program seems to be not well done. In general, it can be concluded that the achievement of the program was not give impression to ward the success of BPR in the University.

The finding of the study showed that the success factors of BPR implementations in the University were somewhat good, but the success factors like: Effective communication, Acceptance of newly designed processes and structure, Effective BPR Cross functional teams, Adequate resources, Effective use of consultants, Committed and strong leadership, Effective management of risks, and An effective IT Infrastructure follows a top down approach were poor in the university. This implies that the key success factors did not contribute as expected to the success of BPR implementation in their university. So it affects the improvement of the performance of a series of task efficiency, product quality and the achievement of organizational objectives and also decreases the chance of successful BPR implementation.

According to the study showed that the strongest barriers were: lack of knowledge about BPR, fear of losing jobs by employees, lack of commitment from top management, employees resistance to change, rapid change of external environment, lack of resources (time, money, staff, etc.), lack of trust between management and employees, unwillingness to share risk equitably, top management fear of empowered employees, bureaucracy, resistance by middle managers because of fear of losing their jobs. This come from the strategy to prevent the development of barriers right form the beginning of the project is poor in the university.

Strategies emplaced to overcome the challenges Implementations of BPR with regard to the provision of adequate training, and separate from old way of doing work were poor in the university. This implies BPR is not effectively implemented in the university.

5.3 Recommendations

Based on the finding of the study and the conclusions drawn the following recommendations have been forwarded.

The study reveals that Provision of adequate training, effective communication, and Leadership commitment was poor in the university. Therefore: It is recommended that University leaders (top executives, process owners, BPR team leaders) conduct training relevant to BPR for those employees who did not attend training to create a clear understanding about BPR. Continuous in service training and workshop are also recommended for employees and leaders who previously attended training relevant to BPR. The content of training and work shop may include reasons why the university initiate BPR, the benefits of BPR for employees, customers and even for the university, the benefits empowering employees fully, the roll of IT in BPR, the success factors of BPR, and the reasons for resistance and how they must be managed. To make an effective communication in the implementation process of BPR the BPR leaders and job performers in the university is recommended to use formally scheduled programs once in a week for a face to face communication and informal communication mechanisms through formal groups. Moreover the communication will be frequent in both directions, be open, honest and clear at all level for all audiences in the university. The university senior management is recommended to design the way of the commitment of the leaders will be improved by using different mechanisms like monitoring and evaluating performance, motivating (like recognition, rewards based on results and disciplined approach) leaders who create conducive environment for BPR, who identify encountered problems and propose the possible solutions, who communicate the need for change to reduce resistance and get commitment from others.

The reason why BPR initiated in the university is not well recognized and understood by all employees. It is recommended that the top management of the university: will develop an effective communication and creating an awareness between leaders and job performers with regard to the reason why BPR initiated, concept, knowledge, achievement and implementation of BPR and the management will provide intensive care such as additional training, comprehensive discussion and close supervision for those unable to adapt on an ongoing basis.

Findings showed that the BPR program is found to be lack of some implementation activities such as: pilot testing is not conducted, establishment of problem resolution process and Plan to

manage the change process were poor or not well done. therefore, it is recommended that pilot testing has to be conducted, problem resolution process has to be established, the university has to be planned to manage the change process and the consistency and clarity of the implementation guide lines has to be checked and sufficient time has to be given to the preparation of pilot testing and implementation plans by leaders (top executives, process owners, team leaders).

According to the finding the most influential barriers were: lack of knowledge about BPR, fear of losing jobs by employees, lack of commitment from top management, employees resistance to change, rapid change of external environment, lack of resources (time, money, staff, etc.), lack of trust between management and employees, unwillingness to share risk equitably, top management fear of empowered employees, bureaucracy, resistance by middle managers because of fear of losing their jobs. To overcome these barriers it is recommended that the university leaders (top executives, process owners, team leaders):

(1) Integrate soft systems (i.e. people) (which include natural resistance to change, comfort in regimentation, unwillingness to share risks equitably, risks in using existing designs, exhausted of change, and fear) with hard systems. This can be accomplished through engaging employees from all levels into the BPR effort and ensure they are promptly updated on all developments. This will increase the chances of adopting the proposed solutions and reduce resistance to change.

(2) Prevent the development of barriers right from the beginning of the project

(3) Concentrate on adding value not merely reducing costs.

Bibliography

- Abdulhadi, N. (1997). "Simulation as a Tool for Re-engineering Construction Processes", PhD thesis, University of Colorado at Boulder.
- Ahmad, R. and Spicer, D. (2007), "A study of the cognitive processing models used in the appraisal system: the Malaysian public service", **ASIAN Academy of Management Journal**, Vol. 7 No. 2, pp. 1-16.
- Alavi, M., Yoo, Y. (1995). "Productivity gains of BPR", *Information Systems Management*, Vol. 12 No.4, pp.43-7.
- Andrews, D. and Stalik, S. (1994). "Business reengineering: the survival guide", Yourdon Press, Englewood Cliffs, NJ.
- Bashein, B., Markus, M. and Riley, P. (1994). "Precondition for BPR success and how to prevent failures", **Information Systems Management**, Spring, pp. 7-13.
- Bashein, B.J., Markus, M.L., & Riley, P. (1994 Spring). Preconditions for BPR Success: And How to Prevent Failures. *Information Systems Management*, 11, 7-13.
- Bechdol, P. (1995). Re-engineering the business of construction. **Construction Business Review**, May/June, 40-2.
- Bennis, W. and Mishe, M. (1995). **The 21st Century Organization: Reinventing Through Reengineering**. Jossey- Bass Publisher.
- Berihu Assefa (2009). Business process Reengineering in Ethiopia: Retrieved on 29 Nov. 2009 from <http://www.frop.edu.jp>.
- Berrington, C. and Oblich, R. (1995). "Translating reengineering into bottom-line results", **Industrial Engineering**, January, pp. 24-7.
- Birnbaum, R. (1988). *How colleges work: The cybernetics of academic organizations and leadership*. San Francisco: Jossey-Bass.
- Boyle, R. (1995). "Avoiding common pitfalls of reengineering", **Management Accounting**, Vol. 77 No. 4, pp. 24-38.
- Bruss, L. and Roos, H. (1993). "Operations, readiness and culture: don't reengineer without
- Burns, R.B. (2000). **Introduction to Research Methods**. London: Sage Publications Ltd.
- C. Kapoor.(2010). Benefits Of BPR. <http://twitter.com/benifitof>

- Caron, M. Jarvenpaa, S.L. & Stoddard, D.B. (1994, September). Business Reengineering at CIGNA Corporation: Experience and Lessons Learned From the First Five Years. *MIS Quarterly*, pp. 233-250.
- Champy, J. (1995). *Reengineering Management ± the Mandate for New Leadership*. London: Harper Business.
- Change Management Success Factors and Obstacles (2003) **Best Practices in Change Management study**, available from: <http://www.prosci.com/tutorial-cm-factors.htm> (accessed).
- Chung For Choi, Stephen L. Chan, (1997). Business process re-engineering; Top management. *Business Process Management Journal* Vol.3, No.1 pp. 39-63
- Clemons, E. (1995). Using scenario analysis to manage the strategic risks of Reengineering. *Sloan Management Review*, 36(4), 61-71.
- considering them", *Inform*, April, pp. 57-64.
- Cooper, R. and Markus, M. (1995). "Human Reengineering", *Sloan Management Review*, Summer, pp. 39-50.
- Cortina, J.M. (1993). What is coefficient alpha? *Journal of Applied Psychology* No.78, pp. 98-104.
- Davenport, T. and Nohria, N. (1994). "Case management and the integration of labor", *Sloan Management Review*, Winter, pp. 11-23.
- Davenport, T. and Stoddard, D. (1994). "Reengineering: business change of mythic proportions?". *MIS Quarterly*, Vol. 18, No. 2, June, pp.121- 7.
- Davenport, T.H. and Short, J.E. (1990). The New Industrial Engineering: Information Technology and Business Process Redesign. *Management Review*, pp. 11 – 27.
- Davenport, Thomas (1993). *Process Innovation: Reengineering work through information technology*. **Harvard Business School Press**, Boston
- Davenport, Thomas H. **Process Innovation**, Boston, MA: Harvard Business School Press, 1993. <http://www.visible.com>.
- Dawe, R. (1996). "Systems are people too", *Transportation and Distribution*, Vol. 37 No. 1, pp. 86- 90.
- Drucker, P.F. (1954). *The Practice of Management*. New York: Harper and Row.
- Drucker, P.F. (1993). *Post-Capitalist Society*. Oxford: Butterworth-Heinemann.
- Drucker, P.F. (1969). *Age of Discontinuity: Guidelines to our Changing Society*. Oxford: Heinemann.

- Earl, M., Khan, B., 1994. How new is business process redesign. **European Management Journal** Vol.12 No.1, pp. 20–30.
- El Sawy, O. (1997). "Business process reengineering ± do software tools matter?", **Conference in Information Systems in Florida, Internet:**
<http://hsb.baylor.edu/~elmsower/ais.ac.97/papers/elsaw.htm>
- Farrell, J. (1994). A practical guide for implementing reengineering. **Planning Review**, 40–5.
- Furey, T.R. (1993). A six step guide to process re-engineering. **Planning Review**, 20–3.
- Griffin, R.W.(2000).**Fundamentals of Management: Core Concept and Applications**. New Delhi; All Indian Publishers and Distributors Regd.
- Grover, V., Jeong, S., Kettinger, W. and Teng, J. (1995), "The implementation of business process reengineering". **Journal of Management Information Systems**. Vol. 12 No. 1, pp. 109-44
- Guha, S., Kettinger, W.J. and Teng, J.T.C. (1993). Business process re-engineering: Building a comprehensive methodology. **Information Systems Management**. pp. 13–22.
- Gummesson, E. (1991). **Qualitative Methods in Management Research**. London: Sage.
- Hammer M. & Stanton A., (1995). **The Reengineering Revolution**. New York: Harper Collins Publishers, 336 p.
- Hammer M. (1990). Reengineering Work: Don't Automatic Obliterate. **Harvard Business Review**. pp. 104 – 112.
- Hammer, M.(1996). **Beyond Reengineering: How the Process- Centered Organization is Changing our Work and Our Lives**. New York: Harper Collins Publishers.
- Hammer, M.(2001). **Agenda: How Every Business Must Do to Dominate the Decade**. New York: Crown Business.
- Hammer M. and Champy J. (1993). Reengineering the Corporation. **A manifesto for Business Revolution Harper Business**.
- Handy C.(1990). **The age of unreason**. London: Arrow
- Harvey, D. (1995). "Reengineering: the critical success factors", **Management Today/Business Intelligence**, London.
- Henderson, J. and Venkatraman, N. (1993). "Strategic alignment: leveraging information technology for transforming organisations", **IBM Systems Journal**, Vol. 32 No. 1, pp. 4-16.

- Hendry, J. (1995b). "Process reengineering and the dynamic balance of the organization", **European Management Journal**. Vol. 13 No. 1, pp. 52-7.
- Holland, D., Kumar, S.(1995). Getting past the obstacles to successful reengineering. *Business Horizons* Vol.38 No.3, pp. 79-85.
- Huber, G.P. and Glick, W.H. (1995). **Organizational Change and Redesign**, Oxford University Press, New York, NY.
- Jackson, D. (1994). "BPR: hype or reality", *The TQM Magazine*. Vol. 6 No. 6, pp. 19-22.
- Jackson, N. (1997), "Business process re-engineering '96", *Management Services*, February, pp. 34-6.
- John Petrakis and Michael Engles. "Creating a Paperless Municipal Court," in **Proceedings of the 2000 Winter Simulation Conference**,
<http://www.informs.org/wsc00papers/278.PDF>.
- Jones, E. K., (1995). Reengineering the maintaining function: adapt to change but don't lose sight of sound maintenance principles. *Plant Engineering*, 49(2), 64.
- Jones, E. K.,(1995). Reengineering the maintaining function: adapt to change but don't lose sight of sound maintenance principles. **Plant Engineering**, Vol.49 No.2, PP. 64.
- Kai A. Simon.(1998). McKinsey BPR Approach. Viktora Institute. @McKinsey
- Kettinger, W., Teng, J. and Guha, S.(1997). "Business process change: a study of methodologies, techniques, and tools", *MIS Quarterly*. March, pp. 55-80.
- King, W.R., Spring.(1994). "Process Reengineering: The Strategic Dimensions." *Information Systems Management*, 11(2), pp. 71-73
- Klein, M. (1994), "Reengineering methodologies and tools: a prescription for enhancing success", **Information Systems Management**, Spring, pp. 30-5.
- Lenk K.(1997). "Business Process Re-engineering in the public sector, in: Taylor J., Snellen I. & Zuurmond A. (eds.), 1997, **Beyond BPR in public administration**, Amsterdam, IOS Press, pp. 151-163
- Ligus, R.G.(1993). **Methods to help reengineer your company for improved agility**. *Industrial Engineering* (Jan.).
- Linden, R.M. (1994). **Seamless Government: A practical Guide to Reengineering in the Public Sector**. Sanfrancisco: Jossey- Bass Publishers.
- Linden, R.M.(1998). *Work Book for seamless Government: A Hands- on Guide to implement Organizational Change*. Sanfrancisco : Jossey- Bass Publishers.

- Lundquist, R. (1998). "Quality improvements of teaching and learning in higher education: a comparison with developments in industrial settings", **Teaching in Higher Education**, Vol. 3 No. 1, pp. 51-61.
- Mabin, V.J., Forgeson, S. and Green, L. (2001). "Harnessing resistance: using the theory of constraints to assist change management", **Journal of European Industrial Training**, Vol. 25 Nos 2-4, pp. 168-91.
- Mahatebu, Y. (2008). "The practice of Business process Reengineering in selected Ministries of Ethiopia and Bureaus of Amhara region." Unpublished M.A Thesis Addis Ababa University.
- Malhotra, Y. (1998). Business Process Redesign: An Overview. **IEEE Engineering Management Review**, Vol.26 No.2
- May, T. (2002). **Qualitative Research in Action**. London: Sage.
- Mayer, J.H. (1998) Avoiding a fool's mission, **Software Magazine**. available http://www.findarticles.com/cf_0/m0SMG/n3_v18/20404321/print.html (accessed 2002).
- McAdam, R. (1999).The implementation of reengineering in SMEs: a ground study. **International Small Business Journal**, 18(4), 353-67.
- McDonald, H. (1993). "Business strategy development, alignment, and redesign", in Scott-Morton, M. (Ed.), **The Corporation of the 1990s: Information Technology and Organisational Transformation**, Oxford University Press, New York, NY, pp. 159-88.
- Mesay, .G (2010). "Achievements and challenge of BPR implementation in education offices of East Showa Zone, Oromiya regional state". Unpublished M.A Thesis Addis Ababa University.
- Miers, D. (1994). Why do BPR Initiatives Fail? **WARIA(Workflow and Re-engineering International Association)Newsletter**, 1(2), 1-2.
- Ministry of Capacity Building (MOCB).(2006).**Business Process Reengineering**. Unpublished.
- Ministry of Capacity Building (MOCB).(2007).**Business Process Reengineering: Training Manual**, Unpublished.
- Ministry of Education(MoE).(2005). Education Sector Development Program III (ESDP- III). Addis Ababa: MoE.
- Ministry of Finance and Economic Development (MoFED).(2007): "Ethiopia: Building on Progress: A Plan for Accelerated and Sustained Development to End Poverty (PASDEP)" **Annual Progress Report**. A.A
- Moad, J. (1993). "Does reengineering really work", **Datamation**, 1 August.

- Moran, J.W. and Brightman, B.K.(2000), "Leading organizational change", **Journal of Workplace Learning**, Vol. 12 No. 2, pp. 66-74.
- Morris, D. and Brandon, J. (1991). "Reengineering the hospital: making change work for you", **Computers in Healthcare**, Vol. 12 No. 11, pp. 59, 64
- Mumford, E. (1999). "Routinisation, re-engineering, and socio-technical design: changing ideas on the organisation of work", in Currie, W.L. and Galliers, B. (Eds), **Rethinking Management Information Systems: An Interdisciplinary Perspective**, Oxford University Press, New York, NY.
- Nunnally, J.C.(1978). **Psychometric Theory**, 2nd Edition. McGraw Hill, New York.
- Ostroff, F. and Smith, D.S. (1992). "The horizontal organization", **The McKinsey Quarterly**, No. 1, pp. 148-67.
- Obolonsky,N. (1996). **Practical Business Reengineering: Tools and Techniques for Achieving Effective change**, Kogan page Ltd. .
- Panettieri, J. (1994). Reengineering anxiety. **Information WSeek**, July, 20.
- Patching, A. and Waitely, D. (1999). **The Future Proof Organization: Practical Lessons in Leadership and Innovation for the 21st century**. KHL Printing co.
- Porter, M.E.(1990). **The competitive advantage of nations**. Harvard Business Review Vol. 68 No.2, pp.73-92.
- Rai, A., Paper, D. (1994). "Successful re-engineering through IT investment", **Information Strategy: The Executive's Journal**, Vol. 10 No.4, pp.15-20.
- Richman, T., Koontz, C.(1993). How benchmarking can improve business process reengineering. **Planning Review** Vol.21 No.6, pp. 26-27.
- Robson, C. (2002). **Real World Research**, Blackwell, Malden, MA.
- Scott, G.M. (1995). "Downsizing, business process re-engineering, and quality Improvement plans: how are they related?", **Information Strategy: The Executive Journal**, Vol. 11 No.3, pp.18-34.
- Shabana, A. (1996). "The effect of outside consultants involvement over the success of BPR projects", College of Business Administration, Texas A&M University, Internet:[<http://hsb.baylor.edu/~ramsower/acis/papers/ashabana.htm>]
- Sharma M. (2006). Business Process Reengineering: A Tool to further Bank Strategic Goals. **Journal of Management Information Systems** No.12, pp. 1.
- Stewart, V. (1983). **Change : The Challenge for Management**. Mc Graw- Hill Book Company.

- Stoddard D.B., and Jarvenpea S.L. (1995). Business Process Redesign Tactics for Managing Radical Change. **Journal of Management Information System** Vol.12 No.1, pp. 61 – 107.
- Subramanian. M. Larry. W. and S. Hossein Cheraghi.(1999).**Business Process Reengineering: a consolidated methodology Dept. of Industrial and Manufacturing Engineering Wichita.** State University Wichita, KS-67260 0035, USA
- Talwar, R. (1993), “Business re-engineering ± a strategy-driven approach”, **Long Range Planning**, Vol. 26 No. 6.
- Terziovski, M., Samson, D., Dow, D.(1997). The business value of quality systems certification: Evidence from Australia and New Zealand. **Journal of Operations Management** Vol.15 No.1, pp. 1–18.
- The U.S. General Accounting Office’s (1997). **Business Process Reengineering Assessment Guide** (<http://www.gao.gov/special/pubs/bprag/ai10115.pdf>),
- Thomas. M. (1994). ‘What you need to know about: business process re-engineering”. **Personnel Management**. January, pp. 28-31.
- Tilley, S. (1996) “Perspectives on legacy system reengineering”, Reengineering Centre, Software Engineering Institute, Carnegie Mellon University, Internet: <http://www.sei.cmu.edu/~reengineering/pubs/lsysree/lsysree.html>.
- Towers, S. (1994). **Business Process Re-engineering: a Practical Handbook for Executives**, Stanley Thomas Ltd, Cheltenham.
- V. Thyagarajan and Ali Khatibi.(2004). BPR - A Tool for Managing the Change **J. Hum. Ecol.**, Vol.15 No.1, pp. 57-61
- Waddell, D. and Sohal, A.S. (1999). Measuring resistance to change: an instrument and its application. **International Journal of Business Performance Management**, Vol.1 No.4, pp. 353–67.
- Zairi, M. and Sinclair, D. (1995). “Business process re-engineering and process management: a survey of current practice and future trends in integrated management”, **Management Decision**, Vol. 33 No. 3, pp. 3-16.
- Zairi, M., Leonard, P.(1994). **Practical Benchmarking—A Complete Guide**. Chapman and Hall, London.

Appendix A
ADDIS ABABA UNIVERSITY
GRADUATE SCHOOL OF EDUCATION
DEPARTEMENT OF EDUCATIONAL PLANNING AND MANAGEMENT

Questioner to be filled by process owners, Job Performers, Team Leaders and Top Executives

General Direction:

This questioner is developed to gather information on an assessment of Business Process Reengineering implementation in Dire Dawa University. The purpose of the study is purely for academic exercise. Hence your cooperation in providing the necessary information is highly appreciated. Thus you are kindly requested to fill the questionnaire honestly and responsdly.

Note that:

- No need of write your name , For close ended questions please mark your response in the table/boxes with "X" mark
- For open ended questions requiring your written response please use the space provided

Thank you in advance for your concern and cooperation

Section I. Personal Information

1.1 Your position in the university

<input type="checkbox"/>	Process owner	<input type="checkbox"/>	job performers	<input type="checkbox"/>	BPR team leaders
<input type="checkbox"/>	University president				

1.2. Sex Female Male

1.3. Age	<input type="checkbox"/>	below 20	<input type="checkbox"/>	40-49
	<input type="checkbox"/>	20-29	<input type="checkbox"/>	50-59
	<input type="checkbox"/>	30-39	<input type="checkbox"/>	60 and above

1.4. Educational Level

<input type="checkbox"/>	Grade 12 or below	<input type="checkbox"/>	Diploma	<input type="checkbox"/>	10+1 or 10+2
<input type="checkbox"/>	Certificate Holder	<input type="checkbox"/>	MA/MSC/MED		
<input type="checkbox"/>	BA/BSC/BED	<input type="checkbox"/>	If any specify _____		
<input type="checkbox"/>	PHD				

1.6. Work experience in years

In current position _____ In other organization _____
 In the university _____

1.7. Any training related to BPR. Trained/enough trained/not enough
 Not training

Section II Planning and Organizing for BPR Project

2.1 BPR Projects are usually initiated by some pressures /forces or reasons. List of forces/reasons for University to reengineer their business process are given below. Please rank them in order of say (1= the most important, 2 = the 2nd most important and 7= then least important)

No	Initiators /Forces/ reasons	Rank						
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th
1	To re-invent the way they do work to satisfy their costumers							
2	To be competitive							
3	To Survive and be Success full in the long term							
4	Government reform need							
5	Customers needs and expectations							
6	To cure systemic process and behavioral problems							
7	Stake holders need							

Comment (IF any) _____

2.4 Ensuring Organizational readiness for change is a pre-requisite to in change process leading to success. Please Rate the extent to which the following readiness factor were fulfilled to embark on BPR in the University. (Rating: 5 = Very high, 4 = high, 3 = medium, 2 = Low and 1= very Low)

No	List of readiness factors	Rating				
		5	4	3	2	1
1	Clear vision					
2	leadership commitment					
3	Staff supportive for change					
4	Organizational self assessment					
5	Staff willingness to learn					
6	Effort of allocating resources to support change					

Comment (if any) _____

2.5 Planning, Understanding the current process and redesigning phase are the primary activities. Before embarking in BPR implementation. In your Opinion to what extent the university has done these activates to implement BPR? (Rating: 5= Very good, 4= Good, 3 = Fair 2 = Poor and 1 = very Poor)

No	Activities	Rating				
		5	4	3	2	1
1	Planning Phase					
1.1	Planning and preparation for BPR projects					
1.2	Develop vision and strategic objective					
1.3	Top management create conducive environment for reengineering to occur					
1.4	Identified the customer driven objectives.					
1.5	Integration of BPR strategic planning in to the strategic vision of the organization.					
2	Understanding As is Process					
2.1	Define and Identify core process with maximum performance impact.					
2.2	Identity process activities					
2.3	Set Performance goals					
2.4	Measure current performance and identify performance gaps					
2.5	Identity Sources of pathologies and determine causes.					
2.6	Develop value driver understanding					
2.7	Problems of Customers /Stake holders Identification					
2.8	Level of Satisfaction identification with the current performance					
2.9	Understand and formally document the existing process					
2.10	The processes that need to be reengineered are identified.					
No	Activities	Rating				
		5	4	3	2	1
3	Design To Be Processes					
3.1	Benchmarking the process - Bench Marking					
3.2	Develop a clean state process design					
3.3	Identify IT and Organizational implication for new process					
3.4	Generate redesign initiatives.					
3.5	Specify changes required in practices, organizational structures and information system					
3.6	Identify the performance criteria for redesign process					
3.7	Model and validate the "to be" process					
3.8	Estimate the performance of redesign process					

Section III BPR project implementation and effectiveness

3.1 The following table contains a list of activities and actions that Organization to take to implement the business process and related change. According to your opinion rate the level of implementation of each of these activities in the university. (Rate: 5= Very good, 4= good 3= Fair 2= Poor 1, = Very poor)

No	Activities	Rating				
		5	4	3	2	1
1	Develop the Detailed process Implementation Plan					
1.1	Develop the approach to implementation plan					
1.2	Develop the Schedule, including review and check points					
1.3	Identify the key resources and skill needed to implement the processes					
1.4	Designate change management leadership					
2	Implement plan and process					
2.1	Perform preparation for the process and system implementation					
2.2	Train the job performers on the new process					
2.3	Perform process measurements, as identified by the plan					
2.4	Review the process and obtain staff feed back					
2.5	Identification of all tasks to be done including time farness, milestones, and deliverable dates					
2.6	Assignment of staff responsibilities for each task, training requirements					
2.7	Establish problem resolution process					
2.8	The establishment of appropriate committee for implementation					
2.9	Necessary preparation for pilot testing					
2.10	Management of change to organization culture					
2.11	Develop a transition plan from the As-Is to the redesigned process					
2.12	Manage to explicit performance objective					
2.13	Develop actual organizational change management program					
2.14	<i>Plan to Manage the Change Process</i>					

Comment (if any) _____

3.2. According to your observations what was implemented and to what extent the implementation of the following in DDU. (Rating: 5= very good, 4 = good, 3 = fair, 2 = poor, 1 = very poor)

No	Activities	5	4	3	2	1
1	Tangible goals and objectives developed based up on the vision					
2	Reengineering opportunities are identified and prioritized					
3	Core processes have been defined and mapped					
4	New measurements methods analyzed and selected and performance indicators developed for the new process					
5	Projects are selected for pilot testing and pilot testing conducted					
6	Design team members are trained in process analysis and reengineering technique.					
7	BPR communication program developed message delivered and communication effectiveness assessed.					
8	It support for BPR process created.					
9	Final readiness assessment for implementation conducted.					
10	Organize wide and process specific vision developed					
11	Potential implementation barriers identified and ways of overcoming them designed.					
12	Tasks are performed as a teams and organized as processes					
13	Bureaucratic structure is minimized					
14	The use of IT in teaching-learning processes and research were integrated					

V. Performance Monitoring and Measuring is use full in BPR implementation to make appropriate adjustments while necessary in the process. According to your observation please rate the following activities of monitoring in the table. (Rate: 5= Very good, 4= good 3= Fair 2= Poor 1, = Very poor)

No	Activities	Rating				
		5	4	3	2	1
1	Guided by Monitoring and evaluated plan					
2	The Performance can be evaluated in quantitative or qualitative aspects.					
3	The feed back from customers provides the opinions on the quality of products and service delivered					
4	The workers can provide on the benefits or deficiencies of the redesigned process					
5	The management should compare the result with the objectives and goal previous set					
6	The progress of action and the result are monitored					
7	The management should provide care for those who can adapt					
8	Continual improvement mechanism was introduced.					

Comment (if any) _____

V. Benefits /Achievements of BPR: BPR brings numerous benefits/achievements to organizations and companies in which it is implemented. Some of the common benefits/achievements of BPR are below the following table. According to your observation in the DDU please rate the following benefits/achievements of BPR. (Rating: 5= highly improved, 4= improved, 3= some what improved, 2= less improved, 1 = not improved)

No	Benefits	Rating				
		5	4	3	2	1
1.	Increase effectiveness					
1.1	Customer satisfaction					
1.2	Deliver high quality					
2	Improvement Organizational approach					
2.1	Provide more meaning full work for employees					
2.2	Increase flexibility and adoptability to change					
3	Improvement Efficiency					
3.1	Reduce time optimization					
3.2	Provide quick response to customer					
3.3	One stop shop service delivery					
4	Organization Structure					
4.1	Hierarchical level reduction					
4.2	Reduction of controls					
4.3	Enable new business growth					

VI. The following table contains one of key success factors in implementing BPR Projects. In your university to what extent each of these items existed and has contributed to the university Success reengineering effort? Rate them 5= strongly agree, 4= agree, 3= undecided, 2= disagree, 1= strongly disagree

No	Success factors	Rating				
		5	4	3	2	1
1	Change Management System and Culture					
1.1	Acceptance of newly designed processes and structure					
1.2	Effective communication					
1.3	All people must be openly and actively involved and should be consulted at all stage of the process					
1.4	Creating an effective culture for organizational change					
1.5	Empowerment and motivation system					
1.6	Revising reward					
2	Organization Structure					
2.1	Effective BPR Cross functional teams					
2.2	Integrating BPR with other improvements approach					
2.3	Adequate identification of BPR Values					
2.4	Appropriate Job definitions and allocation of responsibilities					
2.5	Adequate job integration approach					
2.6	Aligning BPR Strategy with corporate strategy					
3	BPR Project Management					
3.1	Effective Planning and Use of Project management techniques					
3.2	Adequate recourses					
3.3	Setting performance goals and measures					
3.4	Effective use of consultants					
3.5	Appropriate use of methodology					
3.6	Effective process redesign					
4	Management Competency					
4.1	Committed and strong leadership					
4.2	Effective management of risks					
5	IT Infrastructure					
5.1	Building an effective IT infrastructure					
5.2	Selecting an IT Application					
5.3	An adequate understanding of technologies for redesigning business process					
5.4	An effective IT Infrastructure follows a top down approach					

VII. challenges faced in the implementation of BPR and strategy employed. Some challenges that reengineering faces are listed in the following table. According to your observation in the university, assign each challenge a score reflecting its strength/influential efforts. The higher the score the stronger the challenge or influential in the implementation of BPR.

No	Challenges	1	2	3	4	5	6	7
1	Lack of knowledge about BPR							
2	Affected people not informed							
3	Following inadequate approach							
4	Lack of organization readiness for change							
5	Lack of trust between management and employees							
6	Resistance by middle managers because of fear of losing their jobs							
7	Undefined core processes							
8	Problem in communication							
9	Lack of commitment from top management							
10	Vertical structure of organization							
11	Top management fear of empowered employees							
12	Using inappropriate tools							
13	Employees resistance to change							
14	Unwillingness to share risk equitably							
15	Bureaucracy							
16	Fear of losing jobs by employees							
17	Fear of failure by top management							
18	Inappropriate benchmarking (goals)							
19	Rapid change of external environment							
20	Lack of resources (time, money, staff, etc.)							
21	Believing that change doesn't add value to shareholders							
22	Absence of Information Technology (IT)							

Appendix B
ADDIS ABABA UNIVERSITY
DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT

Focus Group Discussions for process owners and Semi- structured interview guide for implementation team leaders and top executives.

- 1 What do you think that initiated BPR in the university?
- 2 How do you evaluate the readiness and preparation of BPR planning in the university?
- 3 To what extent
 - ❖ The concept and purpose of BPR is understood by all employees, customers and stakeholders?
 - ❖ The newly designed processes are customer focused?
 - ❖ It improved service delivered?
 - ❖ The core process and supportive process identified in the university?
- 4 What major benefits do you think that your faculty realized in your BPR efforts?
- 5 What major success factors do you think that helped your office to succeed in the implementation BPR projects?
- 6 What mechanisms were in place to overcome the challenges the implementations of BPR? What challenges still remained to be unsolved?
- 7 What do you recommend on the implementation of BPR projects in the universities?

Thank you for your concern and cooperation.

Appendix C
ADDIS ABABA UNIVERSITY
DEPARTMENT OF EDUCATIONAL PLANNING AND MANAGEMENT

Semi- structured interview guide for customers when they get service from the university

1. What makes difference the service delivered before and after the introduction of BPR in the university
2. To what extent
 - The newly designed process is customer focused?
 - You understood the concept and purpose of BPR?
 - You are required to give feedback or suggestion about the quality and service delivered in the implementation of BPR?
3. What are the improvement efficiency, improvement organizational approach and increase effectiveness in the university according to your observation?
4. What is your recommendation of implementation of BPR in DDU?

Thank you for your concern and cooperation.

Declaration

I, the undersigned, declare that this thesis is my original work, and has not been presented for a degree, in any other university and that all resources of materials used for the thesis have been duly acknowledged.

Name: Solomon Mukonnen

Signature: 

Date: 30/05/2011

This thesis have been submitted for examination with my approval as a university advisor

Name : Jeilu Omer (PHD)

Signature : 

Date : 30/5/2011