

# THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

## Achievements and Challenges of BPR Implementation in Education Offices of East Shoa Zone, Oromia Regional State: Ethiopia

Mesay Gerbi Bogale

Lecturer, Public Service College of Oromia, Ethiopia

### **Abstract:**

*The objective of the study was to assess the achievements and challenges of business process reengineering (BPR) implementation in Education Offices of East Shoa Zone, Oromia Regional State. The assessment attempts to examine the extent of business process reengineering planning and preparation, the extent of its implementation, identify major challenges encountered during the implementation of the new process based system, the achievements of reengineered offices and mechanisms(strategies in placed to ease the implementation. To attain these objectives, the study employed both quantitative and qualitative research approaches. Moreover, a descriptive survey method was used. The leaders and job performers at woreda and zonal level were the major source of data in the study. The data gathering instruments include questionnaires, interviews, focus group discussions and document analysis. All the close-ended questions of the questionnaires were analyzed quantitatively using frequency count, percentages, average mean, standard deviation, t-test and Pearson chi-square test. Besides, the data obtained from open- ended questions, interviews and focus group discussions were transcribed to supplement the quantitative data. The study revealed that organizational readiness was poor. Moreover the planning phase of BPR was poorly developed and communication made in the process of BPR implementation of the Education Offices was also poor. Pre-full scale implementation activities were overlooked by the Education Offices except preparation of implementation plan and office layout. On top of this, follow up and monitoring was getting looser and job evaluation system was not clear and fixed. The achievements gained till now were the stepping stone for better achievements. Furthermore, the study found out that lack of incentives, problems related to value and beliefs, inadequate focus of objectives, lack of resources, leadership focus problems and IT problems were the major challenges encountered in the implementation of PBR project of the Educational Offices. To alleviate these challenges, the offices were not in place appropriate mechanisms/strategies. Therefore, it can be safely concluded that unless proper planning, monitoring and evaluation were conducted and appropriate measures and strategies were timely taken and in place the challenges occurred during implementation impede the system transformation efforts underway by the education offices. Finally recommendations were made based on the results of the study. The key recommendations include the Education Offices leaders and job performers need to create common and shared understanding in installing new values and beliefs by developing different communication strategies like conducting workshops, training, coaching, seminars, creating continuous awareness, distributing pamphlets, employing notice board, using billboard, printings on head letters, using memos and business cards. These could be initiated at Zonal and Woreda Education Offices level by leaders and job performers.*

**Keywords:** Business process reengineering, achievements, job performers

### **1. The Problem and Its Approach**

This part deals with the background, statement of the problem, objectives of the study, significance of the study, delimitation of the study, the research methodology, and organization of the study.

#### *1.1. Background of the Problem*

Ethiopia as the developing country has the vision to be a middle-income country by 2025. To attain this vision, the country has to accomplish its stated missions properly. Eradicating poverty and bringing rapid socio-economic development of the country with a sense of urgency is one of the top agenda of the government. This agenda can be addressed only if public institutions can be able to deliver their products and services efficiently and effectively to the society and be responsive to the citizens' demand.

The role of public institutions in eradicating poverty and enhancing national development is vital. To make them play these key roles the government has embarked on multiple public administration reforms from the early 1990s. Moreover, in 2002, extensive government reorganization was undertaken along with the launch of a National Capacity Building Program (NCBP), which gave new impetus to the Civil Service Reform Program (CSR). The CSR was initiated in 1994 when a task force was established to conduct a diagnostic overview of the condition of the civil service institutions. Based on the findings of this diagnostic phase, the study and development phase of the program were launched in 1997.

The Ethiopian civil service, though over a century old, does not have a culture of performance and service delivery improvement yet. The problem of service delivery, organization and management, work culture and system are the major ones in most of our civil service institutions. These deep-rooted problems cannot be alleviated at one time incremental change.

The most recent reform phase began in 2001 was the launch of the public-sector capacity building support program, which included the CSRP. The government has rapidly prepared the CSRP for its full implementation across all regions and different levels of government institutions. Pilot studies and special programs on performance and service delivery improvements in selected ministries, agencies, and Bureaus have been initiated. These include the establishment of focal bodies responsible for reform implementation across tiers of the government; series of workshops were undertaken to sensitize the political leadership and civil servants across the country; and the launch of a special program of Performance and Service Delivery Improvement Policy (PSIP) in priority ministries, agencies, and Bureaus were designed to deepen the implementation of performance management. PSIP, along with other reform program areas, have promoted Business Process Reengineering (BPR) as a key management initiative, particularly in those ministries that interface directly with the private sector (Getachew and Common, 2006).

By taking these initiatives, the government launched this project in 2005 in a number of federal and regional civil service and public enterprises. Some BPR projects at this time were done by trial and error approaches. It was not well understood by the performers (employees) of the projects apart from saying only the names of the reform programs. Institutions that have embarked into the implementation phase have only resulted achieved incremental changes. Undertaking such a revolutionary change requires understanding the real meaning of the BPR, know how to conduct BPR, plan change management carefully, plan the implementation, and that intensive communication is mandatory in the whole process.

According to Hammer (2001), Hammer and Champy (1993), and Hammer and Stanton (1995), business process reengineering is the fundamental rethinking and radical redesign of business process to achieve dramatic improvement in critical contemporary measures of performance, such as cost, quality service and speed. The concept of business process reengineering (BPR) is emerged in America during the 1980s and early 1990s. From the time when the term "Reengineering" was known by different organizations in different countries have been attempting to put the concept in to practice. In doing so, some institutions have succeeded and got a tremendous result while some others failed to implement BPR properly.

In order to survive in this dynamic and ever changing world, Organizations needs to adjust themselves with their environment and customer needs. In light of this, Walker and Black (as expressed in Balaji, 2004) have identified three reasons for education sector to adopt BPR initiatives – to face the challenges of the industry thereby responding to the demands of the customers, to achieve efficiency, flexibility, and to have an understanding of all variables that directly affect organizational or individual performance. Because of these reasons, dramatic change is a necessity to cope up with this competitive world.

The Government has given special emphasis to education with the firm belief that the long-term development of the country rests upon the expansion and provision of quality education. The Government's desire to improve the provision of quality education resulted in the formulation of the Education and Training Policy (ETP), which encompasses the entire education and training sector. With the framework of the 1994 Education and Training Policy (ETP), the Government of Ethiopia introduced several education sector reform programs. Education Sector Development Program (ESDP) is one of the programs. The main thrust of ESDP is to improve educational quality, relevance, efficiency, equity and expansion of access to education with special emphasis on primary education in rural and underserved areas as well as the promotion of education for girls as a first step to achieve universal primary education by 2015. This program contributes to the achievement of millennium development and education for all goals (Ministry of Education, 2005).

In addition to this, well trained and qualified manpower equipped with modern managerial, technical, research and leadership capabilities play an indispensable role for the rapid development of competitive industries in the country. Hence, due attention is given to the reform in the education system to make education and training responsive to the demand of country's skilled and semi-skilled work force.

Now a day, almost all of the government institutions and enterprises are implementing BPR in every corner of the country. As Oromia National Regional State is one of the regional states in the country, it is also implementing BPR in its almost all government institutions and enterprises. Moreover, it's the leading state in implementing BPR in its respective administrative tier up to the kebele level as the report of regional capacity building indicates.

Oromia is one of the nine national regional states of Ethiopia with an estimated total area of 363, 106 km<sup>2</sup> accounting for about 34.3 percent of total area of the country. It shares common boundaries with all national regional states except the national regional state of Tigray. With regard to population, it is the most populous region with a total population of 26,908,340. The region is divided among eighteen administrative zones, 304 rural districts and 43 reformed town administration (BOFED, RSIC 2006). The regional government is divided into three branches of government namely the parliament (caffee) the judiciary and the executive organs. As part of the executive body there are 36 regional sector bureaus and offices which most of them have branches at zonal, town administrations and woreda levels.

East Showa zone is one of the eighteen zones of Oromia regional state which has 32 sector offices and ten woredas. The majority of sector offices at zonal level have their branch at woreda levels. Zonal education office as one of the sector office of the zone, is currently implementing BPR from zonal level to school compound.

This research aims to assess the achievements and challenges of BPR implementation of East Shoa Zone Education Office and recommend necessary remedial actions.

### 1.2. Statement of the Problem

In order to achieve their goal, institutions have been working in dynamic world environment. This continuously changing world environment influences the institutions in one way or another to undergo change and survive. Institutions, while making an effort to survive, some were dissolved; some others sustain their activities and survive. To this end, institutions have been exercising different approaches for their own survival. In line with this, different authorities identified different kinds of approaches of reform tool to make an institution effective and efficient.

Over time, it was believed that an important condition to undertake the reforms was to implement BPR. It was identified that to solve the problems of hierarchical bureaucracy with many non-value adding works (staffs) positions, etc; BPR is seriously implemented in almost all public institutions gradually. Situations disclose that services delivered by the public institutions were characterized by long time taking, costly, not up to the needs of customers, not responsive, and not dynamic. Therefore, the Ethiopian government adopted BPR in the assumption that the current system had to be completely changed and redesigned (Berihu, 2009).

People have choices when they buy products from private firms. However, government services are characterized by less choice. At the same time, it is the people'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. For example, it was found that deputy head departments were actually doing nothing.

Because of an institution's natural resistance to change, the implementation of a new process is typically the most failure prone phase of the reengineering project. Frequently, the greatest challenges lie not in managing the technical or operational aspects of change, but in managing the human dimensions of change. Some experts caution that unless planning and accountability for change management is given a separate focus, the effort will not be managed well. During the implementation phase especially, institution leaders must be in the forefront in dealing 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 (GAO, 1997).

Despite the achievement of reduction in cost and cycle time of service delivery of some public institutions, the implementation of BPR did not produce the expected dramatic improvements to a larger extent in most of the institutions. An exemplary success story took place in ministry of trade and industry with regard to licensing service where the cost of its cycle time was reduced from 8 days to 39 minutes, and with regard to registration of trade name service where the cycle time was reduced from 2 days to 34 minutes (Getachew and Common, 2006). This implies that BPR has not achieved the expected organizational transformation at large.

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 of employee due to resistance to the change, lack of top management commitment, deliance and taking longer time of service provision process than planned (FDRE,2001)

However, retraining of officials and BPR teams was conducted by different consultants on the concept of BPR and key areas of BPR could not alleviate the problem. For instance problem of process identification, taking longer time than required, lack of timely communication have created fear on employees.(MoCB, 2006). Likewise, Muktar (2008) identified the problems of BPR implementation in Oromia regional state public sectors as lack of adequate skill of employees, failure to take risks, absence of appropriate incentive mechanisms, lack of coordination between top and front line managers, prevalence of competing agendas, failure to adhere to the newly designed processes and lack of well designed change management strategy. In addition to this, there is a problem of mainstreaming public services from end-to-end in all regional civil service institutions. Mahtebu (2008) also noted that lack of previous experience, inadequate understanding of BPR principles, lack of benchmarking of partners and world class practice, lack of necessary competence and skills, and resistance to change as the major challenges. The challenges identified by different authorities may be similar and one may be the cause for the other problem. However, with all of these challenges, BPR is being practiced as a key institutional practice by almost all public institutions in our country.

At this time almost all of the public institutions of our country are at the implementation phase of BPR, especially the public institutions of Oromia regional state were in their third year in implementing BPR. Therefore, conducting research on the achievements and challenges of BPR in this region is timely and relevant to contribute to the success of the project as an input. The output of this research would be disseminated to all education offices understudy at all levels, so that the desired result of transforming the public institution could be realized.

Getachew and Common (2006) have studied the results of first phase of BPR in the Ministry of trade and Industry and Ministry of Education. Muktar (2008) focused on leadership challenges and prospects in BPR projects in Oromia region, while Mahtebu (2008) has focused on planning and readiness aspects, employee attitudes and reactions, and the change process of BPR projects of Ministry of Capacity Building, Ministry of Education, Bureau of Capacity Building and Bureau of Education of Amhara region. Besides, Abdurahaman (2009) assessed the challenges and achievements of reengineering in public sector organizations a year ago. Except the last one, these studies were done when BPR projects of those public institutions were at the infant stage. Most of them identified the problems of BPR implementation in public sectors as lack of adequate skill of employees, absence of appropriate incentive mechanisms, lack of coordination between top and front line managers, failure to adhere to the newly designed processes and lack of well designed change management strategy. All of the studies above were conducted at the head offices of regional or ministry level. The study at this level did not show the challenges and effectiveness of BPR implementation at grass root level. Moreover, identifying the effectiveness and challenges of BPR projects of those public institutions at that stage was doubtful. Therefore, assessing the degree of achievements and challenges of BPR implementation in specific public institutions at the middle of the tier and nearer to grass-root level is relevant and timely task.

Therefore, this paper addressed the following research questions:

- i. To what extent is the BPR planned and implemented?
- ii. How much is the achievement of the re-engineered educational offices?
- iii. What are the major challenges of BPR implementation in education offices?
- iv. What mechanisms are in place to facilitate the implementation of BPR in the offices?

### 1.3. Objectives of the Study

#### 1.3.1. General objective

The general objective of the study was to assess the achievements and challenges of business process reengineering implementation in Education Office of East Shoa Zone, Oromia Regional State.

#### 1.3.2. Specific Objectives

The study has the following specific objectives:

- To assess the planning of business process reengineering implementation.
- To assess the extent of business process reengineering implementation.
- To identify the major challenges encountered during the implementation of the new process based system.
- To assess the achievements of re-engineered in education offices.
- To identify viable mechanisms/strategies to ease implementation of business process reengineering.

### 1.4. Significance of the Study

Implementation is the most difficult phase of the reengineering project. Ideas are turned into actions', and the institution's natural resistance to change must be overcome. Hence, the significance of the study will be as follows.

- The result of this study may provide bureau, zonal and *woreda* officials some basic information and feedback about the achievements of BPR implementation,
- It may enable the regional education bureau, zonal and *woreda* education offices to design better ways of solving implementation problems,
- It may help forward some specific and practical recommendations for future actions on the basis of the findings made,
- The result of the study may draw clearly needed lessons to be learned by other sectors leaders, BPR leaders, team members, trainers, educators and consultants for their practice,
- Finally, the study may help as a stepping stone for other individuals who are interested to deal with related topics for further investigation.

### 1.5. Delimitations of the Study

This study intends to assess the achievements and challenges of BPR implementation in education sector of East Shawa Zone of Oromia Regional State. This sector was selected for its exercise and relative longer period in BPR implementation, and suitability for the purpose of the study. The study assessed the extent of planning and implementation, organizational readiness, its achievements and challenges faced during the implementation of the project.

In assessing the status of the implementation phase, the research focused on discovering the extent of newly designed processes realization, the factors that affect the implementation of BPR, the challenges they have faced and how they are tackling it, the training delivered and deployment of employee and change management plan and strategies used.

The study was delimited on the core business processes of the sector under study. It focused more on the implementation of BPR at the *Woreda* level.

### 1.6. Definition of Key Terms

- Business Process Reengineering: Reengineering is the fundamental rethinking and radical redesign of business process to bring about dramatic improvements in critical contemporary measures of performance measures such as cost, quality, and service speed (Hammer and Champy, 1993).
- Achievements: Refers to attaining the stretched objectives of a given institution through the newly designed processes.
- Leaders: Refers to all top officials and process owners at *woreda* level.
- Job Performers: Refers to all non- managerial civil servants in the civil service organizations that have no responsibility to supervise others, but who are trained and skillful in some field.
- Process: A set of interrelated steps that begins with an input or trigger and ends with an outcome that satisfies the end user (Linden, 1998).

### 1.7. Organization of the Study

This paper is organized into five chapters, the first chapter deals with the introductory part which include background of the study, statement of the problem, objectives of the study, significance of the study, delimitation of the study, limitation of the study, and organization of the study. In chapter two, reviews of related literatures which could guide the researcher were treated. The methodology of the research was presented in the third chapter. After the description of methodology, data analysis and presentation was presented in chapter four. Finally, conclusions and recommendations of the study were treated in the fifth chapter.

## 2. Review of Related Literature

This chapter deals with review of related literature. It presents a synthesis of related literature which is used as foundation for resolving the research problem. Moreover, the review tries to assess reforms in the education system, the emergence and the why of business process reengineering, the phases in BPR, the implication of reengineered processes on the organizational system, success and failure factors in BPR implementation and the reform process in Ethiopia.

### 2.1. Education Reforms

Education reform is a plan or movement which attempts to bring about a systematic change in education practices. Education theories, curriculum reform and operational structure are often areas targeted for change (Tyack and Cuban, 1995). Though educational reforms undoubtedly occurred on a local level at various points throughout history, the modern notion of education reform is tied with the spread of compulsory education. Education reforms did not become widespread until after organized schooling was sufficiently systematized to be reformed. In modern world, economic growth and the spread of democracy have raised the value of education and increased the importance of ensuring that all children and adults have access to high quality and effective education (Linda, 1997). Modern education reforms are increasingly driven by a growing understanding of what work in education and how to go about successfully improving teaching and learning in schools.

The last 10 or 15 years have been a time of great challenge as well as considerable excitement for education systems around the world. Governments everywhere have been embarking on substantial programs of reform in an attempt to develop more effective school systems and raise levels of student learning and achievement. According to Fullan (2007) the success or failure of a school reform can be measured by whether the reform has become accepted, effective, and sustainable part of the school's culture.

Changes in the world economy have provoked three kinds of responses in the education sector. Reforms that respond to shifting demand for skills in both the domestic and world labour markets and to new ideas about organizing the production of educational achievement and work skills can be called competitiveness-driven reforms. Reforms that respond to cuts in public-sector budgets and private company incomes, reducing public and private resources available for financing education can be called finance-driven reforms. Reforms that attempt to improve education's important political role as a source of social mobility and social equalization can be called equity-driven reforms (UNESCO, 1999). The above three kinds of education reforms are interrelated and their driving forces also intertwined to one another.

### 2.2. 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 its affairs are managed. Organizations undergo change for a variety of reasons. Change may take place due to external forces driven from the organization's general environment and by internal forces like the decision of management to alter a certain aspect of the organization or a shift in socio-cultural values.

There are different models of change. The Kurt Lewin's model suggests that three steps are involved in change: unfreezing, change implementation and refreezing. The first stage is concerned with getting people involved in the change and recognize the need for the intended change to overcome inertia. The second phase is when the change occurs – a period of confusion between the old ways and the new ones, and the third step 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 develop 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, 2001; Obolensky, 1996; Patching and Waitley, 1999). It, therefore, becomes necessary to understand resistance for the sake of effective management of change. Unless resistance is properly addressed, it can hamper successful implementation of the designed 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 expectations of people and their perceptions of the effects that the proposed change may have on them (Patching and waitley, 1999). Paradigm changes cause such unconscious resistance like rejecting new ideas without careful consideration or unwillingness to recognize the influence of the change.

Sometimes people form pictures in their minds about the change. They have their own perception and expectations. Upon the comparison drawn between expectations and perceptions, the employee develops a positive or negative attitude towards the proposed change. If the perception formed on how the change will affect favors the expectations out of the change, the individual develops a positive attitude. On the other hand, if the perception is not favorable with expectations, the attitude to be developed will be negative.

### 2.3. Emergence of Business Process Re-engineering (BPR)

Long ago people have founded and built organization to achieve their common purposes. According to Robbins (1990), organization is a consciously coordinated social entity, with a relatively identifiable boundary, that functions on a relatively continuous basis to achieve a common goal or set of goals.

In order to achieve their goal, organizations have been working in dynamic world environment. This continuously changing world environment influences the organizations in one way or another to make change and survive. Organizations, while making an effort to survive, some were dissolved; some others sustain their activities and survive. To this end, organizations have been exercising

different approaches for their own survival. In line with this, different authorities identified different kinds of approaches to make an organization effective and efficient. Some of these are: bureaucracy, management by objective, quality circle, and total quality management.

Even though organizations have adopted different kinds of approaches, some of which are indicated above, all of them achieved incremental change. But today globalization along with the key driving forces of change such as customer service, competition and change have created though environment. For organizations that have been working in philosophies and principles of traditional way of doing their business that helped them yesterday may not help them any more (Hammer and Champy, 1993).

Therefore, organizations have to consider their structure and behavior to fit with rapidly changing environment. Though change was always been the case, however, in the past it was predictable, incremental and evolutionary. But, today it is unpredictable, rapid and revolutionary. The rapid development of new technologies, the globalization of business operations and the continuously changing customer expectations are the main forces behind this change.

The new features of organizations such as responsiveness flexibility and customer focus should be achieved in new perspective shifts from on task based approach to process based thinking. Thus, in a world of rapid flux, organization must change their priorities from a traditional focus on planning, controlling and managed growth to fundamental rethinking of speed, innovation, flexibility, quality and costs. This implies, it is virtually impossible for an organization to retrofit them in this new reality without reengineering (Hammer and Stanton, 1993).

According to Hammer and Champy (1993), reengineering is the fundamental rethinking and radical redesign of business process to achieve dramatic improvement in critical, contemporary measures of performance, such as cost, quality, service and speed. The concept of business process reengineering (BPR) was emerged in American during the 1980s and early 1990s. From the time when the term “reengineering” was known by different organizations in different country have been attempting to put the concept into practice. In doing so, some have succeeded and got a tremendous result for instance, GTE United States largest provider of local telephone service carrying out its maintenance and repair service with a large number of handoffs and long hours in traditional way of doing work. Desiring this period, customer complain was very high parallel to this, the performance of the company was decreasing at a steady state. Due to this and other relevant factor the company has decided to reengineer the process. After reengineering, maintenance and repair service have been handled from end to end by one person, repair service that took hours before completed in minutes, moreover, the company was able to resolve over 40 percent of customer problem. Finally, the company’s performance has improved dramatically.

#### *2.4. Phases of BPR*

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 phase. These phases are interrelated and one is the stepping stone for the other.

##### 2.4.1. Planning Phase of Business Process Reengineering

As it was discussed in the preceding section business process reengineering is a fundamental, dynamic, dramatic change in the business process. These changes are required to make the business processes add value for customer satisfaction. As all deliberate efforts of human being to reach a given end(s), business process reengineering is also requiring a systematic approach in order to serve its purpose in which planning serve as tool. Thus, business process reengineering project 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.

##### 2.4.1.1. Understanding the Top Level Leadership Commitment

Hammer and Stanton (1993) also indicated that leadership is the primary ingredient of BPR because top leaders recognize and understand the systemic difficulty of the process as a whole or to develop new ideas about it. On the other hand, others may lack such quality to run the reengineering process. From this, it is forward that reengineering is successfully implemented only when driven from the topmost level of an organization.

This indicate that the organization should enter in to reengineering project with a good understanding of the plan of reengineering, such as understanding of: what is going to be done or happen, what management’s efforts and attention required for the BPR, what are top priority agenda for organization, and how this will be supported and monitored.

##### 2.4.2. Understanding the Current Process Phase of BPR

This phase of business process reengineering is to understand the As Is of the work done in the traditional way of doing work. It helps to fill the pain of the old way and to see its drawbacks. Internal and external environmental scanning and identification of customers and stakeholders needs and expectation are the priority area for this phase.

##### 2.4.2.1. Customer Needs and Expectations

Reengineering starts with a high-level assessment of the organization’s mission, strategic goals, and customer needs. Basic questions are asked, such as “Does our mission to be redefined? Are our strategic goals aligned with our mission? Who are our customers?” An organization finds that it is operating on questionable assumptions, particularly in terms of the wants and needs of its customers (Dodaro and Brain, 1997).

In addition, reengineering is customer-focused and outcome-oriented. Before an organization embarks on a reengineering effort, it should have a comprehensive understanding of who its current and future customers are and what their needs and expectations are as key input for improving the type, cost, quality, and timeliness of the products and services provided (Jackson, 1997). It is also important to consider the organization needs of the staff working within the organization (internal customer) and third parties outside the formal boundaries of the organization who are involved in delivering the service and products, such as regional states and local governments which help administer a federal government.

Along with customers, stakeholders are another important source of requirements. External stakeholders including oversight bodies, congress (Parliament members), key interest groups, and other, who oversee, fund or are affected by the organization's activities. Internal stakeholders include staff members who would be directly and personally affected by changes in a particular business process. Stakeholders have a great impact on any improvement effort and, when ignored, can jeopardize the success of the effort, while it is impractical to satisfy the needs of all stakeholders, the organization should identify priority key stakeholders' needs and identify areas of consensus, where support for improvement is naturally strong. It is also important to identify areas of fundamental disagreement that may make process improvement much more difficult to achieve (Guha et al., 1993; Ross, 1998; and Dodaro and Brain, 1997). Moreover, the organization should identify and assess the performance gaps between its current performance and customers and stakeholders requirements and then set improvement goals for bridging the gaps by using stakeholders and customers performance requirements, performance measurement data, benchmarking results, and an analysis of other change drivers. These improvement goals should be sharply focused on outcomes linked to the organization's defined mission and what needs to be accomplished.

#### 2.4.2.2. Understand the Current Process Itself

Reengineering identifies, analyzes and redesigns an organization's core business process with the aim of achieving dramatic improvements in critical performance measures, such as cost, quality services and speed. It also recognizes that an organization's business processes are usually fragmented into sub processes and tasks that are carried out by several specialized functional areas within the organization. Reengineering maintains that optimizing the performance of sub processes can result in some benefits, but cannot yield dramatic improvements of the process itself is fundamentally inefficient and outmoded. For that reason, reengineering focuses on redesigning the process as a whole in order to achieve the greatest possible benefits to the organization and their customers. This drive for realizing dramatic improvements by fundamentally rethinking how the organization's work should be done distinguishes reengineering from process improvement effort that focus on functional or incremental improvement (Guha et al., 1993; and Dodaro and Brain, 1997).

Public organization/agencies need to develop a common understanding of the process they use to produce their products and services before they can set about to improve them. These organizations can have a confusing web of interconnected processes and sub processes, many of which cut across several functional departments. It is important to define what the components of each process are, as well as the process' boundaries dependencies and interconnections with other processes (Dodaro and Brain, 1997).

Before the reengineering team can proceed to redesign the process as explained by Bashein et al. (1994), the team should understand the existing process. Although some BPR proponents like Hammer and Champy (1993) argue against analyzing the current enterprise, saying that analysis inhibits the creative process that might not always hold true. It varies from case to case organizations need to map the existing process first, analyzing and improve on it to design new processes. The important aspect of BPR is that the improvement should be dramatic results. Many people do not understand the value of an As-Is analysis and rather prefer to spend a larger chunk of their valuable time on designing the To-Be model directly.

The main objective of this phase is to identify disconnects and non-value adding process. This is first initiated by creation and documentation of activity and process models making use of the various modeling 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 stimulation and activity based costing. All the ground work required having been completed, the processes that need to be reengineering are required (Muthu, et al., 1999).

Generally, it is important to understand the current process before the organization changes them. According to Linden (1994) mapping the current process can provide several benefits. Such a map provides a base-line of current performance. It portrays how the entire "end-to-end" process actually works, it identifies some immediate opportunities for reducing non-value added steps, waiting time, frustration and bottle necks, overlaps and redundancy, it involves people, help them to see the need for change, and builds confidence in the overall design effort and finally it increases commitment of change.

Further, Linden (1994) states that in order to map the current process, points such as, identifying the people who currently perform the processes, interview those people to determine the core and sub processes, prepare a visual map of the current process, identify assumptions which the current process is based and determine whether they are ready to move on the next design step should be taken into account.

#### 2.4.3. Redesigning the Business Process

Redesign is the most creative part of the entire reengineering process. More than any other, it demands imagination, inductive thinking, and a touch of craziness. In redesigning process, the reengineering technical team abandons the familiar and seeks the outrageous. Redesign asks the team members, specially the insiders, to suspend their belief in the rules, procedures, and values that they have learnt in their whole working lives.

The bad news about redesigning a work process is that it is not algorithmic and routine. There are no steps that will mechanically produce a radical new process design. The good news about redesign is that while it may require creativity, it's not necessary to start with an entirely blank slate (Hammer and Champy, 1993).

Redesigning process entails envisioning the new form of company or organization and inventing a new way of doing its work. It starts from clean sheet of paper. In light of this, Hammer (1993) indicated that it is the most challenging part in reengineering efforts. It demands out-of-the-box thinking to produce the big idea. Therefore, challenge is how to produce big ideas. Creativity is the central theme for producing big ideas. To do this the reengineering team should unlearn the rules, regulations and traditional way of doing things. Process redesign should be breathtaking on account of its potential effects on the company, but it need not be intimidating. We develop some techniques that teams can use to get themselves started, and we have some ideas about how to keep people creative juices flowing during redesign. Creativity is frightening. It requires the ability to see what is not here yet, to perceive the invisible, to produce what never existed before.

According to Hammer and Champy (1993), there are three kinds of techniques help reengineering team to stimulate their thinking to produce whacko ideas/big ideas. These are: breaking Assumptions, attempting to apply one or more principles of reengineering and looking for opportunities for creative application of technology.

#### 2.4.4. Implementation Stage

The implementation of new process is typically the most failure-prone phase of the reengineering project because of an organization's or people natural resistance to change. Frequently, the greatest challenges lie in managing the human dimensions of change. Therefore, the change management is the key issue to make the change happen.

##### 2.4.4.1. Change Management

Executives should begin to develop and carry out a formal change management plan to bring the organization's values into line with the goals of reengineering. If the change management is delayed, it will be very difficult to build support and momentum among the staff for implementing the new process (Hammer, 2001). Therefore, executives should work hard to achieve a broad-based consensus among different parties concerning the reengineered processes, and to overcome internal skepticism as well as resistance to change through the use of different mechanism such as change management activities training and successful pilot testing of the new process.

##### 2.4.4.2. Communication

The aim of communication is to make information readily and efficiently available to everyone but not to inundate people with unnecessary information. People must be clearly responsible for sharing information others need and for accessing information they themselves need. Knowledge about the big picture and about performance is essential if members of the organization are going to feel responsibility for team and organization performance and to make good decisions from an organization perspective (Mohrman, 1997). Clear and effective communication is essential to the success of every change projects. Its objective is to enable recommendations to be understood by everyone and acceptance to be secured from those who are most affected by or involved in, any change. To this effect, the leader and the process owners with their team should prepare communication plan and ensure effective communication among staff and stakeholders. Thus, communicate, communicate, and communicate! Repetition really works; many managers seem to operate on the assumption that once they have said something, everybody has gotten the point (Hammer, 2001). The key to effective communication is reinforcement in many ways, through many channels, and by many people.

##### 2.4.4.3. Preparation of Implementation Plan

Experiences have shown that implementation is the most formidable challenging phase of the reengineering project. The leader with his/her core staff and management should develop a detailed implementation plan that lays out the road to the new process. Critical elements and milestones should be identified and their progress closely monitored by the executive steering committee (Jakson, 1997). Time tables for all actions should be specified, and the individual's responsibility for overseeing and performing tasks should be assigned.

##### 2.4.4.4. Pilot Testing

Regarding how to implement a successful pilot testing and enhance people's commitment, Linden (1994) started that, if an agency is committed to change and use a pilot to learn how its change will work, it needs to involve many 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. It does not happen through isolated pilot project.

The team with its process owner shall use pilot testing in the time framework set in the implementation plan to evaluate and refine the new process design. Pilot testing is an effective tool that allows the organization: to evaluate the soundness of the proposed process in actual practice, to identify and correct trouble spot or problems with the new design, to refine performance measures, to generate support for full-scale implementation from employee, stakeholders, public and so on, and adjust goals and develop improvement plan.

##### 2.4.4.5. Implementation and Monitoring

It is the time for the reengineering proposals will be set in motion-people financial resources and other requirements will be made available to yield the process and system improvements that ensures the anticipated efficiency and effectiveness. The success of the implementation will rest on the degree of commitment, unflinching attention to detail and rigorous follow-up thoroughly, regular progress against milestones and deadlines, regular communication of progress and successes in achieving the targets by all involved and responsible in their parts.

### 2.5. The Reform Processes 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 onwards) in response to a growing awareness 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, and good government( Ministry of Capacity Building in Getachew and Common, 2005).

The first reform phase was in the early days of the ruling party, EPRDF. Following the consolidation of power, the government also acknowledged the deep institutional constraints on basic functions such as policy making, service delivery, and regulations. Core public management systems at the federal and regional levels were hampered by outdated civil service legislation and working systems; the absence of a medium-term planning and budgeting framework, ineffective financial and personnel management controls, inadequate civil service wages and inappropriate grading systems, 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 structures which led to long and time consuming service delivery and obsolete management structure, more concern given to inputs and routine activities than achieving tangible outputs, the absence of a formally constituted complaints handling mechanism, rare consultation of the service users about their needs, and lack of coordination and cooperation among various departments in an organization were found to be the major problems and draw backs which led to inefficient and ineffective service delivery (MoCB,2002). These and other problems limited the role of the civil service to promote social and economic development of the country.

With a strong belief that an efficient and effective service delivery; and ethical, fair, dynamic and productive civil servants in the 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 Program. 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.” The policy reflects the intention and expectations of the government regarding service delivery and quality of services as well as the rights and obligations of service 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 towards 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.

However, this fundamental change could not be successful in old bureaucratic system. Therefore, undertaking the business process reengineering becomes a reality. It is opted as a primary tool for bringing institutional transformation in the public institutions. Oromia regional government is one of the country’s regional government states. The region was supposed to implement policies of reform measures taken at national level as it is or with some modification. To this end, the regional government has been carrying out the implementation of business process reengineering for the last 5 years. The region has started the study of BPR project for the first time in 2006 in 11 public sectors. It was reported that, even before its implementation the very introduction of the concept has brought some attitudinal changes and optimum. This has stimulated the regional government to go ahead and implement it in all public organizations of the region. As the BPR working manual document of Oromia Capacity Building Bureau, even though, some tremendous changes have been observed during the implementation of the project, the change was incremental rather than radical.

In addition, as a result of some limitations observed, the regional government committed itself to study and implement the BPR project for the second time in 2007 in public sector of the region as a unified effort. Oromia Education Bureau as one of the regional government public sector, has carried out the BPR full scale implementation in all of its zone and *woreda* offices. In particular, East Shoa Zone Education Office and its *woredas* have been also fully implementing the BPR since 2006?

### 3. Research Methodology

In this study both qualitative and quantitative research approaches were used. Descriptive research method was employed as it was the appropriate method which enables the researcher to assess and describe the achievements and challenges of BPR implementation in broad and wider magnitude. Furthermore, the descriptive survey method also enabled the researcher to find out the solutions for the existing problems in implementing of BPR in educational offices and helped to answer the basic questions (Yin, 2003).

#### 3.1. Sources of Data

Both primary and secondary data sources were used for this research.

##### 3.1.1. Primary Sources

Primary data were obtained from key informants; namely BPR implementation team leader at Oromia Education Bureau and Woreda Education Office level, Educational Office leaders and job performers at Zonal and woreda level, BPR implementation team of Zone Education Office and some selected customers/citizens. Implementation team leader at Bureau level was taken because of his responsibility of following up the implementation phase of BPR as a whole in the region (Education Office Leaders and Process Owners) and BPR implementation teams at zonal and woreda levels were included because of their contribution to the planning and implementation of BPR. Job performers were selected because they were the ones who were directly involved in the materialization of

the new process. Some selected customers/citizens were also included as key informant for the reason that they were the direct beneficiaries of the service delivered by the education offices.

### 3.1.2. Secondary Sources

Secondary data sources like BPR main document, the BPR project plans, manuals, guidelines, reports on BPR implementation policies and other relevant documents were used as data sources.

### *3.2. Sampling Techniques and Procedures*

Education Bureau of Oromia was one of the Regional Bureaus which implement BPR at all levels of its structure. At the bureau level it is organized with five core processes and four support processes. The core processes were teachers and education manager's development, curriculum and evaluation, educational resource identification, construction of institutions and material supply, educational supervision and accreditation, and public relation. The support processes include human resource management, audit and inspection, procurement and finance administration and planning, budgeting and administration of educational management information system. Process owners for each processes and job performers as a team were assigned for both core and support processes.

Zone Education Office was redesigned by BPR simply to organize reports and provide support for Woreda Education Offices. Its organization and structure was more flat than at Bureau level. At the zonal level there was only education office leader and job performers. The core processes at Bureau level also designed at this level. Core processes at zonal level were not led by process owners. It was organized by case workers and job performers not more than one or two members. They were directly reported to Zone Education Office leader. At zonal level there are no support processes for the office alone except one focal person for human resource management. The rest support processes are used commonly with other offices at zonal level.

Woreda Education Office was the nearest office to the schools where the core activity; learning and teaching process take place. The Office was also designed similar to Bureau level with core processes except the public relation core process which was not designed for this level. Teachers and educational managers' development core process was the only process which has process owner at this level. But, under all core processes there were job performers and case workers who are assigned to perform the job in the process. At the woreda level there was only plan, budget preparation and educational management information system as a support process.

Different sampling techniques were employed for selecting respondents. Of the 18 Zones of Education Offices of Oromia Regional State, East Shoa Zone Education office was selected as a sample. It was selected using purposive sampling method. At the Zonal level the whole core processes were taken for the study by availability sampling method. Besides, out of 13 job performers, 9 (69.23%) were taken as a sample. Out of the ten woredas in the zone, eight were selected through simple random sampling method. Since, BPR project was implemented in all woredas at the same time this method of sampling gives equal chance to be included in the sample. On top of this, all core process at woreda was taken for the study using availability sampling methods. Out of 111 job performers at Woreda Education Offices level, 94 of them were selected as a sample through simple random sampling method. The sample of job performers drawn from each Woreda Education Office was proportionally taken depending on the numbers of job performers in each office. Furthermore, Education Bureau BPR implementation team leader, Zonal Education Office Leader, Zonal BPR implementation team, Woreda Education Leaders, woredas BPR implementation team leaders and process owners at woreda levels were selected by using availability sampling methods for they were the key sources of information on the BPR projects. Some customers were taken though accidental sampling method and interviewed on the spot when they were getting the service. In general, 83% (103 out of 124) job performers from Zone and Woreda Education Offices were selected by using simple random sampling to give the performers equal chance of being included in the sample.

### *3.3. Instruments of Data Collection*

In this study different types of data collection tools were used to obtain as accurate information as possible. These were questionnaires, interview, focus group discussion and document analysis.

#### 3.3.1. Questionnaire

The questionnaire was used for leaders (Woreda Education Leader and Process Owner) at woreda level and job performers at zone and woreda level. It was designed to get detailed information on the achievements and challenges of its implementation. Close ended and open ended questions were included in the questionnaire. The questionnaire contains choice items, five-point scale rating items and ranking questions. The key elements included in the questionnaire were about the planning and the readiness made, pre-full scale implementation activities and the achievement of BPR. On top of this, it contains questions about the challenges faced during the implementation of BPR and strategies used to alleviate the challenges.

#### 3.3.2. Interviews

Interview was used to get in depth information about the issue understudy from Zone Education Office leader, Oromia Education Bureau BPR implementation team leader, Woreda Education Office BPR implementation team leaders and fifteen customers/citizens when they were getting service from the offices. Interview guide questions include questions about the planning phase of BPR, pre-full scale implementation activities and the achievement of BPR. Moreover, it contains questions related to identification of major challenges faced and its remedies used to overcome them.

### 3.3.3. Focus Group Discussion

Discussion was arranged with implementation team at Zonal Education Office level to get insight on the readiness, achievements and challenges of BPR implementation. Moreover, possible solutions for problems or challenges and future expectations in BPR implementation were discussed with these groups.

### 3.3.4. Document Analysis

Key documents were thoroughly reviewed to obtain background information about the BPR program and experiences of other organizations. In addition to this BPR main document, plans and implementation reports were examined.

### *3.4. Procedures of Data Collection*

Once the pre filed preparation was completed, with the letter of request for access to the concerned body of each institution, the formal contact was made. Along with this, the formal request for access to the relevant documents was made and secured on the first visit. Then the exact number of participants as per the sample size in each group was decided and the actual number of participants was determined.

Having done this on the second day of the visit an interview schedule was presented to the contact person and appointment for interview was made with the selected respondents. As per the appointment, the interview sessions were conducted each lasting one hour and twenty minutes. Besides, focus group discussion was held with the specified target groups as per the appointment set with the group which takes two hours and ten minutes.

After the questionnaires were prepared pilot testing of the instrument was made on one randomly selected woreda from non-sampled woreda education offices. Metehara Woreda was selected for pilot testing. The pilot test was conducted on 9 respondents, based on the pilot test; the internal consistency of the instrument was calculated using Cronbach Alpha as it was appropriate to test the reliability of Likert scale question items. Cronbach Alpha formula was used to calculate the reliability of the questionnaire as a result the reliability of the instrument was found to be 0.87. Hence, the instrument was found to be reliable as statistical literatures usually recommend test result of 0.65 and above as reliable for attitude opinion and perception questions items.

Moreover, to confirm the validity of the instrument, participants of the pilot test were oriented about the objectives of the pilot study, how to fill, evaluate and give feedback regarding the relevance of the question items. Based on the suggestion forwarded and information obtained, the necessary corrections and modifications were made before the questionnaires were administered to subjects of the study.

In general, the pilot test helped the researcher reduce number of items; avoid errors related to clarity of languages and contents, and include some important concepts which were not initially included in the questionnaire. After the necessary improvements were made, the questionnaires were duplicated and distributed with the necessary orientations to be filled by the respondents. Finally, out of 103 job performers to whom the questionnaires were distributed 91(88.35%) of them and 16 leaders 15(93.75%) of them successfully completed the questionnaire and returned.

### *3.5. Data Analysis and Presentation*

Quantitative data obtained from the questionnaire were tabulated around the subtopics related to the research questions and descriptive statistics like arithmetic mean, standard deviation and percentages was used to indicate the extent of response or frequency per each item. Advanced statistical tools namely independent two samples t-test and Pearson chi-square were employed to see whether or not there existed a difference between the responses given by leaders and job performers and those relationships were statistically significant or not. The questionnaire was coded and analyzed by using statistical package for social sciences (SPSS) program. The category of respondents in analysis was used as leaders (Woreda Education Office Leader and Process Owner) and job performers (at Zone Education Office and Woreda Education Offices). Besides, the decision rules used in the analysis was average mean less than 3 low, average mean equal to 3 medium and average mean greater than 3 throughout the study.

The qualitative data obtained from the documents, focus group discussion and semi-structured interview were transcribed, edited and organized around the subtopics derived from the research questions. Furthermore, the data from the interview, focus group discussions, open-ended questions, and documents were triangulated, checked against the quantitative ones and discussed. Besides, the findings were discussed and interpreted in relation to the relevant literature.

## **4. Data Analysis and Interpretation**

This chapter presents, the data gathered from top executives, BPR implementation teams, leaders and job performers by using questionnaire, document analysis, interview and focus group discussion. The data obtained were thus organized, tabulated, transcribed and analyzed to get findings.

### *4.1. Characteristics of the Respondents*

The background information of the respondents of the study was analyzed and discussed in terms of their implication for BPR project implementation. The characteristics of respondents were summarized in the following table.

No	Variables	Characteristics	Respondents					
			Leaders		Job Performers		Total	
			No	%	No	%	No	%
1	Sex	Male	12	80.00	63	69.23	75	70.75
		Female	3	20.00	28	30.77	31	29.25
		Total	15	100	91	100	106	100
2	Age Category	20-29	1	6.67	20	21.98	21	19.81
		30-39	8	53.33	38	41.76	46	43.39
		40-49	4	26.67	22	24.18	26	24.54
		50-59	2	13.33	11	12.08	13	12.26
		Total	15	100	91	100	106	100

Table 1: Respondents' Distribution by Position, Sex, and Age Category

As it can be seen from table 1, the majority of the respondents 75 (75.75%) were males while the remaining 31 (29.25%) were females. This implies that the overwhelming number of respondents were male. The main reason for the lower member of female respondents in this study goes to the historical gender disparity public institutions in the country in general and that of the region in particular.

Concerning the age distribution of the respondents, the majority of them 46(43.39%) and 26(24.54%) fell in the range of 30-39 and 40-49 years respectively. This shows that under normal circumstances, they can express ideas related to the study consistently and with good understanding. Thus, their opinion can be taken as valuable idea to the study.

No	Variables	Characteristics	Respondents					
			Leaders		Job Performers		Total	
			No	%	No	%	No	%
1	Educational Level	Diploma	-	-	20	21.98	20	18.87
		BA/BSC/BED	13	86.67	63	69.23	76	71.70
		MA/MSC/MED	2	13.33	8	8.79	10	9.43
		Total	15	100	91	100	106	100
2	Work Experience in Years	Less than 5	2	13.33	18	19.78	20	18.87
		6-10	4	26.67	26	28.57	30	28.30
		11-15	5	33.33	31	34.07	36	33.96
		16-20	4	26.67	7	7.69	11	10.38
		20 and above	-	-	9	9.89	9	8.49
		Total	15	100	91	100	106	100

Table 2: Respondents' Distribution by Position, Educational Level and Work Experience

As shown in table 2, the educational profile of the respondents, while the overwhelming majority 76(71.70%) of them had BA/BSC/BED, the remaining 20(18.87%) and 10 (9.43%) had college diploma and MA/MSC/MED respectively. This means that in terms of educational profile in general terms the education offices have the required level of education to implement the new process. Moreover, the information they provide would be more reliable and valid since they had the understanding about their work processes. In relation to work experience, 30(28.30%) and 36(33.96%) of the respondents had worked for 6-10 and 11-15 years respectively in their organization. This implies that the employees of these educational offices were supposed to have adequate understanding of how their office is working to attain its objectives.

Regarding training provision, key informants on the interview and focus group discussion revealed that Education Bureau provide training of trainers for zonal and *woreda* level on the concept of BPR and how to implement the new process. According to them the training was not as such effective and the trained job performs and leaders did not train the rest of the employees as required, because they did not internalize it by themselves. This implies that the provision of training in the education offices regarding BPR was not sufficient. Thus, the whole employee of the offices might lack the understanding of the BPR concept and this might affect its effective implementation.

#### 4.2. Analysis of Data on Achievements and Challenges of BPR Implementation

This part of the chapter deals with the analysis of data gathered from the respondents on the planning and implementation of BPR, its achievements, the implementation challenges and mechanisms/strategies employed to alleviate them.

##### 4.2.1. The Planning and Implementation of BPR

The planning phase of BPR is the initial point. It includes identification of the pressures or forces that drive the reform, organizational readiness for change and planning the activities that help to undertake the BPR project. Moreover, this part deals with the understanding and redesigning phase of BPR since they are the prerequisite for BPR implementation. On top of this the pre-full scale, during and post implementation activities are included under this topic.

#### 4.2.1.1. Pressures/Forces for BPR to Occur

Any reform could not be conducted for the sake of reform only. That is behind any reform there is certain driving force or pressure that pushes it to occur. According to Hammer and Champy (1993) three factors (customers, competition and change) separately or in combination forces an organization to undertake changes and these forces create a new world for work. It is becoming increasingly apparent that organizations design to operate in one environment cannot be fixed to work well in another. The following table summarizes the response on forces that make it to happen.

No	Pressures/Driving Forces	Respondents																				Pea. X <sup>2</sup>	Sig(2-tail)
		Leaders										Job Performers											
		1		2		3		4		5		1		2		3		4		5			
N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
1	Customer needs and expectation	8	53.3	2	13.3	3	20.0	2	13.3	-	-	27	29.7	13	14.3	42	46.6	5	5.5	4	4.4	6.12	0.19
2	Governmental reform need	2	13.3	1	6.67	12	80.0	-	-	-	-	47	51.6	19	20.9	13	14.3	7	7.7	5	5.5	31.02	0.00
3	Competition	3	20.0	2	13.3	3	20.0	7	46.7	-	-	19	20.9	12	13.2	27	29.7	33	36.3	-	-	0.80	0.85
4	Stakeholder need	1	6.67	2	13.3	2	13.3	1	6.67	9	60	18	19.8	10	11.0	6	6.6	26	28.6	31	34.1	6.79	0.15
5	Change	2	13.3	10	66.7	2	13.3	1	6.67	-	-	23	25.3	42	46.2	13	14.3	6	6.6	7	7.7	3.04	0.55

Table 3: Respondents' Ranking on the Driving Forces /Pressures/ Initiators of BPR Project  
df=2

As depicted in table 3 above the driving forces or pressures of BPR were ranked by leaders and job performers. Accordingly, leaders ranked customers needs and expectation, change, government reform need, competition, and stakeholder need as first, second, third, fourth and fifth respectively. Job performers on their part ranked government reform need, change in the world of work/globalization, customers need and expectation, competition and stakeholders needs as first, second, third, fourth and fifth respectively. This implies that both groups of respondents had understood the reason for why the change occurred in their offices. Thus, the need for BPR was well recognized throughout the education offices.

A Pearson chi-square was applied to reveal the agreement level of the two groups of respondents. The result obtained revealed that, with the exception of item 2, four degree of freedom at 95 percent confidence interval, the associated p-values were found to be greater than 0.05 implying that there was an agreement between the responses given by the respondents of the two groups. Hence, the factors that make reengineering to happen were well recognized by both groups of respondents. Nevertheless, there still remains a lot to change the old way of thinking. The opinions of leaders and job performers showed difference in identifying government reform need as cause/force leading to embark in BPR. It is indicated in the table that Pearson chi-square value was 31.024 and its p-value (0.000) was less than 0.05. In this case there was statistically significant difference in perception regarding governmental reform needs. This implies that there was awareness gap on government reform need in the educational offices.

According to key informants though leader and job performers have a moderate understanding of the concept of BPR, there is a big gap in explaining why it was initiated, whether it could be important for themselves and for their offices, and whether they were aware that BPR was the only way out to survive in this dynamic world. Thus, the difference in opinion between the responses given by the two respondent groups on governmental reform need for BPR and customers needs and expectation might be originated from lack of effective communication.

#### 4.2.1.2. Organizational Readiness

Ensuring organizational readiness for change is a pre-requisite to engage into a change process. Since business process reengineering is one of the change processes it needs organizational readiness assessment. These factors includes having clear vision about the change, leadership commitment, staff supportiveness for change, organization self-assessment, effort of allocating resources to support change, staff willingness to learn and etc. Table 4 below summarizes the responses of leaders and the job performers on the readiness level of the organization with regard to the perceived factors.

No	Items	Respondents						t	Sig. (2-tailed)
		Leaders			Job performers				
		N	Mean	Std. Deviation	N	Mean	Std. Deviation		
1	Clear vision	15	2.7	1.4	91	2.0	0.9	2.344	0.021
2	Leadership commitment	15	2.6	1.3	91	2.4	0.8	0.978	0.330
3	Staff supportiveness for change	15	1.8	0	91	2.0	1.1	0.555	0.580
4	Organization self-assessment	15	2.6	1.3	91	2.5	1.1	0.256	0.798
5	Effort of allocating resources to support change	15	2.6	1.1	91	2.5	1.0	0.457	0.649

Table 4: Respondents' Rating on Organizational Readiness Factors  
Av. Mean < 3 low, Av. Mean = 3 medium and Av. Mean > 3 high; df=104

The items in table 4 were specifically designed to examine the extent of organizational readiness to undertake BPR project. As indicated in the table, both groups of respondents rated the organizational readiness as low (Av. mean < 3). This implies that the education offices may not properly fulfill the necessary pre-requisite for undertaking BPR.

A t-test was done to reveal the agreement level of the two groups of respondents. The result obtained revealed that, with the exception of items 1 and 2 at 95 percent confidence interval the associated p-values are found to be greater than 0.05 implying that there was an agreement between the responses given by the respondents of the two groups. Hence, it was highly recognized throughout the education offices that organizational readiness for BPR to occur is found to be vital. In connection to this, Hammer and Champy (1993), state that to get people move from where they are now to where they are supposed to be, the pain of status-quo serves as a tool to detach them and the vision as a magnet to attract them to another point. The pain pushes and the vision pulls.

Nevertheless, still remains a lot to be done in creating leadership commitment as required and developing clear vision of BPR. With regard to item 1, though their average mean is in the same category was low (Av. mean < 3) the p-value is less than 0.05 (p-value 0.021) which implies that there is statistically significant difference in the responses of the two groups. The majority of leaders ascertained that in the education offices to some extent (Av. mean 2.67) there is clear vision of BPR while the job performers reported that the vision that we have about BPR and where it may take the office is poor (Av. Mean 2.02). The value of standard deviation (1.447) of leaders also indicates that their response highly deviated from the mean towards the highest value which implies there is clear vision of BPR in the offices.

With connection to organizational readiness for undertaking BPR, key informants revealed that to have clear vision, one has to get the understanding of the concept of BPR, but in case of these offices understanding was not created as expected. To develop commitment primarily the why, what and how of BPR has to be understood and they have to feel the pain of the current performance. According to them, this was not performed primarily as required. Moreover, they indicated that it was taken as fashion of the day. Thus, it is safe to conclude that organizational readiness for BPR to occur was poor, this might be because of lack of know how about BPR concept, unaware of the dynamicity of the world and the failure of feeling pain of the traditional way of doing work.

#### 4.2.1.3. Planning Phase of BPR

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 behavior (Clemons, 1995). As shown in table 4 both groups of respondents have rated the extent of the education offices have done the planning and preparation phase to implement BPR.

No	Items	Respondents						t	Sig. (2-tailed)
		Leaders			Job performers				
		N	Mean	Std. D	N	Mean	Std. D		
1	Preparation for planning the BPR project	15	1.9	1.3	91	1.9	0.8	0.090	0.928
2	Preparation of BPR action plan	15	2.9	1.4	91	2.8	1.0	0.144	0.856
3	The top management create conducive environment for reengineering to occur	15	2.5	1.2	91	1.9	1.0	2.218	0.029
4	Integration of BPR project in to the organization's overall strategy	15	3.5	1.3	91	3.5	1.1	0.019	0.985
5	Developing a change management plan	15	4.3	0.7	91	2.8	0.9	6.700	0.000

Table 5: Respondents Rating on Planning Phase of BPR Project  
Av. Mean < 3 low, Av. Mean = 3 medium and Av. Mean > 3 high; df=104

Planning phase is the primary activity in undertaking BPR project. The other phases of BPR depend on what we build at this stage. As indicated in table 5, preparation for planning the BPR project, preparation of BPR action plan, and creation of conducive environment for engineering to occur by the top management were rated by both groups of respondents as low (Av. mean < 3). This might be because of the preparation that organization made for planning like conducting assessment, resource mobilization etc were not at zonal and *woreda* level. In addition to this the development of BPR as a whole was undertaken at Bureau level. Item 2 is about integration of BPR project in to the organizations overall strategy which the respondents rated as high. This implies that BPR was integrated with the organizational strategy. Moreover, it accelerates the implementation of the strategy.

As shown in item 5 of table 6, developing a change management plan was rated by leaders as high (Av. mean 4.33) and job performers rated it as low (Av. mean 2.76) in contrary. This implies that the change management plan developed by leaders was not as such participatory and not communicated to the job performers. Moreover, the standard deviation value also shows the response of both respondents were around the mean value. This shows the responses were not much more dispersed.

A t-test was done to reveal the agreement level of the two groups of respondents. The result obtained revealed that, with the exception of item 5, at 95 percent confidence interval the associated p-values are found to be greater than 0.05 implying that there was agreement between the responses given by the respondents of the two groups. With regard to item 5, the associated p-value (0.000) is found to be less than 0.05 implying that there was no agreement between the responses given by the respondents of the two groups. This might be because of the above reasons.

With regard to planning the key informants on interview at bureau, zonal and *woreda* level indicated that much of the work of planning was done at Bureau level. At the zonal and *woreda* level to some extent it lacks the necessary preparation and creating conducive environment to occur. Moreover, change was not led by appropriate and communicable plan. But, Linden (1998) pointed out that the change management plan and its communication thought is needed from the very start of the reengineering effort, its importance becomes more imminent at the implementation phase, where the change becomes real. Here, the finding contradicts with this fact. Thus, it is safe to conclude that planning of the BPR project at *woreda* and zonal level was not done and the change management plan was there but not as such leading the change effort.

#### 4.2.1.4. Understanding and Redesigning Phase of BPR

Understanding the current process is the foundation on which the redesigning phase builds on. The two phases are often referred to as the heart of reengineering (GAO, 1997). The understanding phase helps to develop the As-Is of the organization and it helps to design the To-Be process in the redesigning phase. Table 6 below summarizes the responses of respondents on the two phases.

No	Items	Respondents						t	Sig. (2-tailed)
		Leaders			Job Performers				
		N	Mean	Std. D	N	Mean	Std. D		
<b>Understanding Phase</b>									
1	Identification of Problems	15	3.7	1.3	91	3.9	0.8	0.789	0.432
2	Identification of satisfaction level	15	3.7	1.4	91	3.6	0.9	0.139	0.890
<b>Redesigning Phase</b>									
3	Performance gap identification	15	4.1	.6	91	3.8	1.1	1.283	0.202
4	The stretch objectives meet the stakeholders/customers expectation	15	2.9	1.3	91	2.8	1.1	0.276	0.783
5	The new process represents a dramatically improved process	15	4.1	0.7	91	3.6	1.1	1.707	0.091
6	Help the Office achieve its stretch objectives	15	3.8	0.9	91	3.2	1.2	1.637	0.105

Table 6: Respondents Rating on Understanding and Redesigning Phase of Reengineering  
Av. Mean < 3 low, Av. Mean = 3 medium and Av. Mean > 3 high; df=104

The major activities in understanding and redesigning phases are: identification of customers/stakeholders needs and expectations, preparation of As-Is for the current process, identification of the gap between customer/stakeholders needs and expectation and the current performance level, developing stretched objectives, designing new process which could help the organization achieve its stretch objectives and realize its organizational vision.

As shown in table 6, both respondent groups replied to the items as good (Av. mean > 3) except item 4. This implies that understanding and the redesigning phases were well done. However, as it is observed in item 4 of the same table both respondent groups rated as low (Av. mean < 3). The development of stretch objectives was poor to meet the customers/stakeholders needs and expectations. This might be because of the objectives being extremely stretched and become difficult to attain them.

In connection to these issues interviewees indicated that the two phases of BPR especially in redesigning the zones and *woredas* levels were not fully involved but in case of understanding phase of BPR the needs and expectations of customers/stakeholders were collected somehow. Regarding the To-Be processes they also indicated that it helps the organization to attain its objectives and carried out its mission. Furthermore, as it was observed from the documents of BPR the newly designed core and support processes were customer focused. But the stretched objectives to some extent look ambitious.

A t-test was done to reveal the agreement level of the two groups of respondents. The result obtained indicated that, for all items, at 95 percent confidence level the associated p-values were found to be greater than 0.05 implying that there was an agreement between the responses given by the respondents of the two groups. Hence, the understanding and redesigning phases of BPR were the heart of reengineering. They were well organized to help the successfulness of the implementation phase.

#### 4.2.1.5. Communication in BPR Processes

Communication in any change process is a key element to make the implementation effort successful. In connection with this Carr and Johanson (1995) emphasized as it is needed throughout the change process at all levels and for all audiences even with those not involved directly in the reengineering project. The following table summarizes the responses of respondents on the communication activities done in the organization.

No	Items	Respondents						t	Sig. (2-tailed)
		Leaders			Job Performers				
		N	Mean	Std. D	N	Mean	Std. D		
1	Preparation of BPR communication plan	15	3.9	1.2	91	3.9	0.8	0.231	0.818
2	Communication of the plan to employee	15	1.7	0.7	91	1.5	0.6	1.582	0.117
3	Communication of the plan to customers and stakeholders	15	1.5	0.5	91	1.4	0.5	1.083	0.281
4	Continuity of communication	15	1.6	0.5	91	1.3	0.5	2.231	0.028

Table 7: Communication Activities Rated by Respondents

Av. Mean < 3 low, Av. Mean = 3 medium and Av. Mean > 3 high; df=104

As shown in table 7 the respondents rated the major communication activities in the organization. Item 1 of table 7- preparation of BPR communication plan was rated high by leaders and job performers. This implies that the leaders and job performers develop the

plan together. Moreover, the value of standard deviation 1.2 of the leaders shows that their response was deviated towards the highest value from the mean (Av. mean 3.9). This indicates that this activity was their primary activity and they discharged it properly.

On the other hand, the rest of communication activities were rated as low (Av. mean < 3) by both groups of respondents. This implies that preparation of the plan by itself was not an end by itself but it is the means to an end. Without communicating the plan to employee and customer/stakeholder, the practicality of the plan would be doubtful. The continuity of the communication was also in problem. In connection with this Devanport (1993) and Jackson (1997) pointed out that communication should take place frequently and in both directions between those in charge of the change initiatives and those affected by them. It should be open, honest, clear and continuous, especially when discussing sensitive issues related to change such as personnel reductions.

A t-test result revealed that with the exception of item-4 at 95 percent confidence interval the associated p-values were found to be greater than 0.05 implying that there was an agreement between the responses given by the respondents of the two groups. Thus, the problem of communicating the communication plan was well recognized throughout the education offices.

Regarding item-4 of table 7 the result of t-test indicated that at 95 percent confidence interval, the associated p-value was found to be less than 0.05 (p-value 0.028) implying that there was statistically significant difference between the opinions of the two groups of respondents. The difference in the opinion between the two groups of respondents might have been aroused from the fact that leaders seem to be hesitant to disclose their limitations in this regard as it obviously fell under their responsibility to develop the communication plan and communicate it to employee and customer/stakeholders continuously.

Moreover, from focus group discussion and opinion in open ended questions it was indicated that there was the problem of communicating the communication plan throughout the education offices. Thus, it is safe to conclude that the communication made throughout the BPR effort might not be based on plan and was not continuous as required to make its implementation successful.

#### 4.2.1.6. Preparation for Full Scale Implementation

The fourth phase in BPR project is the implementation phase. It is the most difficult phase of the reengineering project. Implementation phase is the most challenging and failure prone phase of BPR (Linden, 1998). This is because all the previous phases represent a preparation to move into a new system of work and everything up to this phase is designed on paper and only communicated to employees and customers/stakeholders. The practical testing and actually carrying out each aspect of the To-Be, which requires changing the physical and mental setting happens only at this stage and changing all of these complex elements takes time and is challenging.

Moreover, the implementation phase requires advanced preparation and being more proactive actors to make the implementation successful. It should be followed by a planned monitoring and evaluation process to determine the efficiency and effectiveness of the new process, both during pilot tests and full implementation, in meeting the stretched objectives.

BPR implementation requires specific planning on how to allocate resources, deploy employees, conduct pilot testing, manage change and provide training to move into new process and world of work. For the items designed, regarding the preparation for implementation, the responses of the two groups of respondents were summarized in table 8.

No	Items	Respondents						t	Sig. (2-tailed)
		Leaders			Job Performers				
		N	Mean	Std. D	N	Mean	Std. D		
1	Resource allocation for implementation	15	2.7	1.3	91	2.4	1.0	0.901	0.369
2	Assignment of process owners according to the new criteria	15	4.7	0.5	91	1.3	0.5	24.722	0.000
3	The establishment of appropriate committee for implementation	15	4.5	0.6	91	2.6	1.1	6.452	0.000
4	Preparation of implementation plan	15	3.6	1.2	91	3.5	1.1	0.331	0.742
5	Management of the implementation according to the plan	15	1.7	1.0	91	1.5	0.7	0.734	0.465
6	Necessary preparation for pilot testing	15	2.1	1.1	91	1.8	0.8	1.127	0.262
7	Staff involvement in pilot testing	15	2.2	1.8	91	1.9	0.9	1.341	0.183
8	Redeployment of employees to the new structure	15	2.5	1.2	91	2.4	1.1	0.344	0.732
9	Provision of the necessary training and support	15	1.7	0.9	91	1.7	0.8	0.131	0.896
10	Out placement of surplus human resource	15	1.5	0.6	91	1.4	0.6	0.799	0.426
11	Management of change to organizational culture	15	1.9	0.9	91	1.9	1.1	0.142	0.887

Table 8: Respondents Rating of Preparation Activities for Full Scale Implementation

Av. Mean < 3 low, Av. Mean = 3 medium and Av. Mean > 3 high; df=104

As depicted in the table above the activities and actions that the education offices needed to take to realize the new business process and related changes were rated. Accordingly, resource allocation for implementation, management of the implementation according to plan, necessary preparation for pilot testing, staff involvement in pilot testing, redeployment of employees to the new structure, provision of the necessary training and support, the way the management has dealt without placement of surplus manpower and management of change to organizational culture were rated as low (Av. mean < 3). This implies that the education offices were not giving much attention to the preparation part of full scale implementation. Especially, changing the value and belief according to the new world of work is the corner stone for transforming the offices. Culture is the organization software like the software of a

computer without which one cannot see a transformed organization (Jackson, 1997). But, the offices were not giving much emphasis for the value and beliefs needed in the new world of work. On the other hand, preparation of implementation plan was the only activity that was rated as high (Av. mean > 3). But, only preparing the plan did not lead to success. The value of the standard deviation (1.2 for leaders and 1.1 for job performers) imply the majority of their response was highly deviated to the highest position from the mean. This implies that they were preparing the plan to satisfy the requirement of the higher body.

Moreover, to assess whether or not there existed a perceptual difference among the responses given, a t-test was conducted. The result of the t-test revealed that at 95 percent confidence interval the associated p-value was greater than 0.05 except for items 2 and 3 implying that there was no statistically significant difference between the responses given by the two respondent groups. Thus, they believed that the level of implementation of the above listed activities in their offices were poor.

The response of item 2 and 3 of table 8 was different from that of the rest of the activities. The assignment of process owners according to the new criteria was rated as high by leaders and as low by job performers. In addition to this, the establishment of appropriate committee for implementation was rated as high by leaders and low by job performers. This implies that the response of the two groups of respondents was significantly different (p-value < 0.05). This might have been aroused from the fact that leadership seems to be hesitant to disclose their limitations in this regard.

In addition to this, the qualitative data also confirmed that there was problem in redeployment of employees, process owners' assignment, pilot testing and managing the implementation according to the plan. Even though more emphasis was given to the placement of surplus human resource as it was a serious problem in the education offices, it was not handled properly. They also indicated that team charter was not properly developed and used as contractual agreement among the team members and the process owners. According to them training was given for training of trainers from the bureau level and then they did not follow whether the appropriate training was given or not to the employees at lower levels. Likewise, for pilot testing, every level did its own testing activity at the same time in the region. At this stage data recording for refinement and follow-up part was not properly carried out. The key informants also cited that office lay out preparation was good in most of the offices under study. Therefore, it is safe to conclude that except the office layout the other preparation activities for full scale implementation were poor.

#### 4.2.1.7. Monitoring and Evaluation at Implementation Phase of BPR

Implementation phase of BPR is the most difficult and hardest part of reengineering. Hence, monitoring and evaluation is useful in BPR project implementation to make appropriate adjustments while necessary in the process. Without it timely remedy and recalibration is difficult or even impossible. Accordingly, the following table summarizes the response of the two groups of respondents on the activities of monitoring and evaluation.

No	Items	Respondents						t	Sig. (2-tailed)
		Leaders			Job Performers				
		N	Mean	Std. D	N	Mean	Std. D		
1	Guided by monitoring and evaluation plan	15	3.5	0.7	91	2.2	0.8	6.181	0.000
2	Complete date collected from beneficiaries at all levels	15	2.2	1.2	91	1.9	1.0	0.962	0.338
3	Conducted by concerned body	15	3.5	0.7	91	2.6	1.1	4.508	0.000
4	The result is used to recalibrate the implementation effort	15	1.7	0.7	91	1.7	0.7	0.273	0.788
5	The result is used to solve the implementation problems	15	2.4	1.4	91	2.1	1.2	0.757	0.451
6	Continual improvement or refinement mechanisms was introduced	15	1.5	0.6	91	1.4	0.5	0.605	0.546

Table 9: Respondents Rating of Monitoring and Evaluation Activities  
Av. Mean < 3 low, Av. Mean = 3 medium and Av. Mean > 3 high; df=104

Table 9 depicted that both groups of respondent rated the activities of monitoring as low (Av. mean < 3). This implies that the emphasis given to monitoring and evaluation was less. In case of pilot testing it was very difficult to evaluate the soundness of the proposed process in actual practice, identify and correct problems with the new design.

A t-test result revealed that at 95 percent confidence interval the associated p-value was found to be greater than 0.05 for the above listed activities except for items 1 and 3, implying that there was an agreement of the responses given by the respondents of the two groups. This indicates that both disagreed with the accomplishment of the above listed monitoring and evaluation activities.

On the other hand, for item 1 and 3 of table 9 the responses given by the two groups were different (p-value less than 0.05). In case of item 1, leaders rated as high (Av. mean 3.53) in which it was guided by plan and job performers rated as low (Av. mean 2.19)- not guided by plan. This implies that either the leaders perform it by themselves or the plan for implementation was not communicated to the job performers. The other was who conducted it; leaders rated high (Av. mean 3.47) which means by the concerned body and job performers rated low (Av. mean 2.15) not by the concerned body. This implies that the leaders conducted the whole monitoring and evaluation activity. Hence, it has to be conducted by leaders and job performers together because there were areas that required the involvement of job performers since they have been empowered.

In addition to this key informants and responses from open ended questions revealed that the data collected for monitoring and evaluation was not reliable because it was not collected properly from all beneficiaries at all levels. That was why some problems occur during pilot testing for refinement and improvement at full scale implementation of BPR. The key informants also indicated that

there was no continuous improvement/refinement mechanism. Initially BPR was implemented weekly monitoring program in place for some time. However, after certain months monitoring was disrupted and forgotten. Thus, lack of proper and timely monitoring and evaluation might impede the transformation efforts underway by education offices.

#### 4.2.2. Achievements of the Re-organized Educational Offices

The major achievements expected after implementation phase are the realization of stretched objectives and transformation of the education offices to the new world of work. Linden (1998) due to change in other aspect of the organization, like structure and jobs, rules and regulations, policies and procedures, management styles, values and beliefs, and other changes can be observed in these areas. Table 10 summarizes the achievements BPR implementation in education offices.

No	Items	Respondents						t	Sig. (2-tailed)
		Leaders			Job Performers				
		N	Mean	Std. D	N	Mean	Std. D		
	<b>Quality Service Delivery</b>								
1	Customer satisfaction	15	2.5	0.7	91	2.5	0.8	0.081	0.936
2	Communicating vision	15	1.7	0.9	91	1.6	0.7	0.203	0.839
	<b>Cost Efficiency</b>								
3	Decrease cost of service delivery	15	3.7	0.8	91	3.6	0.8	0.362	0.718
4	Reduction of hand-offs	15	3.8	0.9	91	3.9	0.8	0.351	0.726
	<b>Speed in Service Delivery</b>								
5	Time optimization	15	2.9	0.9	91	2.8	0.9	0.602	0.548
6	One-stop-shop service delivery	15	4.3	0.6	91	4.3	0.7	0.080	0.937
7	Hierarchical level reduction	15	2.9	1.1	91	2.7	1.2	0.366	0.715

Table 10: Respondents Rating on Achievements of BPR Implementation  
Av. Mean < 3 low, Av. Mean = 3 medium and Av. Mean > 3 high; df=104

##### 4.2.2.1. Achievements in Quality Service Delivery

Primarily the basic intention of conducting BPR project is to satisfy customer/stakeholder needs and expectation. Regarding quality service delivery two items were designed and rated by both groups of respondents. These are customer satisfaction and communicating vision which were rated as less improved (Av. mean < 3). This implies that after full scale implementation of BPR project even though not as that of expected level but improved to some extent.

The result of the t-test reveals that at 95 percent confidence interval the associated p-values were greater than 0.05 implying that there was no statistically significant difference between the opinions of respondents regarding the achievement of quality service delivery.

Moreover, informants were asked how they rate the communication effort of their offices and responded that communicating vision to the customers/stakeholders was much better than the case in the old way of doing work and that communication contributed for the provision of quality service delivery. Likewise, customer/stakeholder satisfaction also improved to some extent as they said. Thus, since quality service delivery is not a one-time activity it needs follow up and refinement of the newly designed process from time to time to attain the expected level of satisfaction.

##### 4.2.2.2. Achievements in Cost Efficiency

As indicated in the definition of BPR, one key area where BPR is expected to bring about dramatic improvement in critical contemporary measures of performance is cost. In table 10 of items 3 and 4 designed to assess the efficiency of BPR implementation. These items were rated as improved (Average mean greater than 3). This implies that cost of service delivery and hand offs have decreased. In case of hand offs it also related with cost and speed of service delivery. The relationship was as hand offs reduced the cost of service delivery reduced and the speed of service delivery increased.

The result of the t-test revealed that, at 95 confidence intervals, the associated p-values were found to be greater than 0.05 implying that there was an agreement between the responses given by the respondents of the two groups. Hence, it was well recognized that reduction of cost of service delivery and hand-offs were among the achievements of BPR implementation in the education offices.

Regarding automation or information communication which is directly related with reduction of cost of service delivery and hand-offs, the key informants revealed that first it was designed to develop automation in all *woredas* in the zone later because of budget limitation. The flow of work designed through automation has been changed to paper work to solve the problem. Had it been the whole sector from the bureau level to school level automated no need to zonal office which is the extension of bureau. Therefore, though automation could not substitute or be equated with reengineering it would be useful to reduce cost and increase speed of service delivery.

##### 4.2.2.3. Achievements in Speed of Service Delivery

Speed in service delivery was also one area where BPR was expected to bring about dramatic improvement. As shown in table 10 items 5, 6 and 7 are related with speed of service delivery. Time optimization and hierarchical level reduction were rated as less improved from the old way of doing work (Av. mean < 3). This implies that the speed of service delivery was to some extent better

than the practice in the past. But both group of respondents rated one-stop-shopping service delivery has improved (Av. mean > 3). This increases the speed of service delivery resulting from new approach introduced during BPR implementation.

The result of t-test reveals that, at 95 percent confidence interval, the associated p-values were greater than 0.05 implying that there was no statistically significant difference between the opinions and respondents regarding the achievements of speed in service delivery.

In general, concerning the achievement of BPR implementation, the key informants through the interviews and focus group discussion also pointed out that reduction of control was to some extent improved. The other area was value and belief of the employee in the education offices. In this regard, they indicated that the start was motivating but did not dramatically changed as expected. Jackson (1997) pointed out that developing new values and beliefs within an organization requires along time span, constant and persistent effort, high commitment from leaders and flexible approach. Some customers also indicated that the achievements recorded till now were promising though not as expected. Thus, they are the stepping stone for better achievements. These achievements include efficiency in terms of resources utilized and also lead to the effectiveness of BPR implementation in the education offices.

#### 4.2.2.4. Key Success Factors for BPR Implementation

BPR has great potential for increasing productivity/service delivery through reduced process time and cost, improved quality and greater customer satisfaction, but it often requires a fundamental organizational change (Alter, 1994). As a result, the implementation process is complex, and needs to be checked against several success factors to ensure successful implementation. Based on practices and research a number of scholars have identified a list of key success factors of reengineering. The responses of the respondents to what extent each of the key success factors existed in their offices and contributed to their success of reengineering effort was summarized in the following table.

No	Items	Respondents						t	Sig. (2-tailed)
		Leaders			Job Performers				
		N	Mean	Std. D	N	Mean	Std. D		
1	Revision of motivations and reward systems.	15	1.7	0.6	91	1.6	0.7	0.221	0.826
2	Effective communication	15	1.8	0.7	91	1.8	0.7	0.102	0.919
3	People involvement	15	2.1	1.1	91	1.9	1.1	0.844	0.400
4	Creating an effective culture for organizational change	15	2.1	0.9	91	2.0	0.9	0.138	0.890
5	Committed leadership	15	2.1	1.1	91	2.0	1.0	0.379	0.706
6	Adequate job integration approach	15	2.3	0.9	91	2.2	0.9	0.234	0.815
7	Setting performance measures	15	1.6	0.6	91	1.5	0.7	0.324	0.746
8	Increasing IT utilization (automation)	15	1.7	0.7	91	1.6	0.7	0.319	0.751

Table 11: Respondents Rating on Key Success Factors of BPR Implementation  
Av. Mean < 3 low, Av. Mean = 3 medium and Av. Mean > 3 high; df=104

As depicted in table 11 both groups of respondents rated revision of motivations and reward systems, effective communication, participation of employee, creating an effective culture for organizational change, committed leadership, adequate job integration approach, setting performance measures and increasing IT utilization as they did not exist (Av. mean < 3) in their offices. This implies that key success factors of BPR implementation in were not registered in their offices.

A t-test was conducted to reveal the agreement level of the two groups of respondents. The result obtained revealed that at 95 percent confidence interval, the associated p-values were found to be greater than 0.05 implying that there was an agreement between the responses given by the respondents of the two groups. This implies that they agreed on the finding.

According to key informants and opinions in the open ended questionnaire provision of motivations and reward systems, and creating an effective culture for organizational change were areas where a lot of activities needed to be done to make them contribute to the success of implementation phase. The change in value and belief also depends on them. Moreover, they pointed out that there was problem of job integration with internal and external interfaces. In connection with communication, Hammer and Champy (1993) stressed that it has to be continuous and repetitive. But in this case they revealed that it was not as expected to lead the implementation to success. Thus, it can be safely concluded that the listed key success factors appeared to be the challenges/failure factors of the BPR implementation in the education offices.

#### 4.2.3. Challenges Faced in the Implementation of BPR

Reengineering despite its promise for radical change it is not a failure proof technique. Challenges of BPR are factors that relate to BPR process of the organization that lessens the effectiveness of its implementation. They may be related to every aspect of the organization and any phase of the BPR project.

Challenges faced during the implementation of BPR impair its success. Frequently, the greatest challenges lie not in managing the technical or operational aspects of changes, but in managing the human dimension of change. Widely shared organizations, based on assumptions deeply rooted in the organization's culture, can translate it in to a belief that reengineering is unnecessary, unworkable, or

unfair (GAO, 1997). The extent to which the challenges were serious and hence impaired the success of the reengineering effort was summarized in the following table.

No	Items	Respondents						t	Sig. (2-tailed)
		Leaders			Job Performers				
		N	Mean	Std. D	N	Mean	Std. D		
1	Problems in communication	15	4.7	0.7	91	4.2	0.7	0.300	0.765
2	Problems related to value and belief	15	3.6	0.8	91	3.7	0.9	0.207	0.837
3	Lack of incentives	15	4.6	0.5	91	4.6	0.5	0.048	0.962
4	Inadequate focus of objectives	15	3.1	0.7	91	3.2	0.7	0.442	0.660
5	Office layout preparation problems	15	1.4	0.5	91	1.4	0.5	0.206	0.838

*Table 12: Respondents Rating on Top Four Challenges Faced in the Implementation of BPR  
Av. Mean < 3 low, Av. Mean = 3 medium and Av. Mean > 3 high; df=104*

As shown in table 12, both groups of respondents rated the major challenges namely, problems related communication, problems related to value and belief, lack of incentives and inadequate focus of objectives as they seriously (Average mean greater than 3) impaired the success of BPR implementation in the respective educational offices. This implies that the challenges or problems have to be given serious attention to alleviate them.

The result showed that at 95 percent confidence interval, the associated p-values were found to be greater than 0.05 implying that there is no statistically significant difference between the opinions of the two groups. This implies that both respondent groups agreed upon the seriousness of the aforementioned implementation challenges in their offices.

Informants on the focus group discussion and interview also added further challenges; the existence of organizational resistance, lack of organizational readiness for change, lack of commitment and support from leadership, problems related to BPR resource allocation and automation problems. Lacks of incentive based on registered results, mismatch between work load and worker's payment, and salary scale variation among equally qualified workers across different levels were also identified. Loose implementation follow-up and assessment, leadership focus problem and hierarchical communication gaps were still stated as the prevailing challenges of BPR implementation. Most of them were discussed in the body of the paper. Unless appropriate strategies were in placed promptly, the challenges or problems might impede the system transformation efforts underway by the education offices.

#### 4.2.4. Mechanisms/Strategies in Place to Alleviate Challenges

Challenges in implementing any change are natural in organizations. But overcoming/solving the challenges is one of the key successes for achieving the intended result. According to Jackson (1997) during the implementation phase, leaders must be in the forefront in dealing with the social, psychological and political challenges to change the way work is done. Leaders must also recognize that their own roles and responsibilities may need to undergo change as well. Table 13 summarizes the responses of the two groups of respondents for the list of some strategies used to overcome the challenges.

No	Items	Position of Respondents				Total		Pearson chi-square	Sig.(2-tailed)
		Leaders		Job Performers		No	%		
		No	%	No	%				
1	Creating a shared vision							15.043	0.001
	Yes	12	80.0	26	28.6	38	35.8		
	No	3	20.0	53	58.2	56	52.8		
	I don't know	-	-	12	13.2	12	11.3		
	Total	15	100.0	91	100	106	100.0		
2	Separate from the old way of doing work							6.249	0.044
	Yes	10	66.7	30	33.0	40	37.7		
	No	4	26.7	51	56.0	55	51.9		
	I don't know	1	6.7	10	11.0	11	10.4		
	Total	15	100.0	91	100.0	106	100.0		
3	Create a sense of urgency							0.745	0.689
	Yes	4	26.7	29	31.9	33	31.1		
	No	9	60.0	44	48.4	53	50.0		
	I don't know	2	13.3	18	19.8	20	18.9		
	Total	15	100.0	91	100.0	160	100.0		
4	Reinforcing change							0.019	0.990
	Yes	2	13.3	11	12.1	13	12.3		
	No	12	80.0	74	81.3	86	81.1		
	I don't know	1	6.7	6	6.6	7	6.6		
	Total	15	100.0	91	100.0	106	100.0		
5	Provision of adequate training							4.870	0.088
	Yes	9	60.0	33	36.3	42	39.6		
	No	4	26.7	52	57.1	50	52.8		
	I don't know	2	13.3	6	6.6	8	7.5		
	Total	15	100.0	91	100.0	106	100.0		
6	Proper allocation of resources							9.629	0.008
	Yes	12	80.0	34	37.4	46	34.4		
	No	2	13.3	45	49.5	47	44.3		
	I don't know	1	6.7	12	32.2	13	12.3		
	Total	15	100.0	91	100.0	106	100.0		

Table 13: Respondents Response on Strategies in Place to Alleviate Problems/Challenges  
df=2

As indicated in table 13, the majority of respondents revealed that mechanism of creating a sense of urgency and reinforcing change were not used to alleviate the challenges. This implies that there was a gap of awareness in creating a sense of urgency on the implementation of BPR and to reinforce the desired result there was no clear direction. The majority of leaders confirmed that creating a shared vision 12 (80.0%), separate from the old way of doing work 10 (66.7%), provision of adequate training 9(60.0%), and proper allocation of resources 12(80.0%) were the strategies used to alleviate the challenges. On the other hand, the majority job performers revealed that creating shared vision 53(58.2%), separate from the old way of doing work 51 (56.0%), provision of adequate training 52(57.1%), and proper allocation of resources 45(49.5%) were not used as strategies to tackle the problems. This implies that the responses of the two respondents were different. The difference in opinion between the responses given by the two respondent groups might originate from the fact that leaders were tempered to exaggerate their performance in this regard.

A Pearson chi-square test was calculated to check whether perceptual difference exists between the two groups of respondents. Accordingly, the result revealed that, for 2 degrees of freedoms at 95% confidence interval, except for items 1, 2 and 6 the associated p-values were found to be greater than .05 implying that there is no statistically significant difference in perception regarding the responses given to the items 3, 4 and 5. On the other hand, for items 1, 2 and 6 the associated p-values were found to be less than 0.05 implying that there was a statistically significant difference between the responses given by two respondent groups. The difference in the opinion between the two groups of respondents might have been aroused from the fact that leaders seem to be hesitant to disclose their limitations in this regard as it obviously falls under their responsibility.

## 5. Conclusions and Recommendations

### 5.1. Conclusions

This study was conducted to assess the achievements and challenges of BPR implementation of East Showa Zone Education Offices. It was concerned with the extent of planning and preparation of the BPR project, the extent of implementation and its achievements.

On top of this, the study also identifies major challenges encountered during the implementation of the new process based system and mechanisms/strategies in place to ease implementation of BPR in the educational offices under study. Therefore, pertaining to the findings deduced from the study, the following conclusions were drawn.

The organizational readiness made by the educational offices for the effective implementation of BPR was poor. This emanated from lack of know how about BPR concept and the dynamic nature of the world of work. On top of this the planning phase of BPR was also poor. The poorness of the implementation of the BPR was attributed to lack of effective communication, lack of effective follow up/monitoring, unclear job evaluation system and lack of fixed evaluation system. Besides, the educational offices overlooked the pre-full scale implementation activities. However, the educational offices were found to have done well the understanding and the redesigning phases of the BPR process. With regard to achievements gained by the education offices in quality of service delivery, cost efficiency and speed of service delivery, though not as satisfactory as the stretched objectives are the stepping stone for better achievements.

The educational offices in the zone faced daunting and multifaceted challenges in the course of implementing BPR. The challenges were specifically, lack of effective communication, lack of incentives, problems related to value and beliefs, inadequate focus of objectives, absence of clear and adequate monitoring and evaluation systems, leadership focus problem, inadequate allocation of resources and IT (automation). Still the educational offices were not able to make use of such strategies as creating a shared vision, separate from the old way of doing things, provisions of adequate training, reinforcing change, creating a sense of urgency and proper allocation of resources.

Therefore, it can be safely concluded that unless proper planning, monitoring and evaluation are conducted and appropriate measures and strategies are timely taken and in place the challenges occurred during implementation impede the system transformation efforts underway by the education offices. In general, BPR is a recently launched reform program in the educational offices which is at its infant stage. The achievements recorded by this reform were promising and the challenges explored by this study emanated from lack of adequate conceptual understanding, technical skills, and lack of experiences and exposure about its implementation on the part of leaders and job performers of the Education Offices under the study.

### 5.2. Recommendations

Based on the findings of the study and the conclusions drawn, the following recommendations have been forwarded so as to augment the BPR efforts of the offices:

1. Successful implementation of BPR depends on strong and continuous communication about the change in and out of the educational offices. But, in the study it was found out that the education offices in the zone encountered lack of effective communication as the major challenge. Therefore, to make effective communication in the implementation of BPR, the educational offices leaders and job performers at zonal and *woreda* level should use formally scheduled program once in a week for the face to face communication, printed media, etc and informal communication mechanisms through informal groups in the offices. Moreover, the communication should be frequent, in both directions, be open, honest and clear at all levels and for all audiences in the education offices.
2. The study revealed that the education offices in the zone did not give due attention to the need for institutionalizing the value and beliefs needed for the new world of work that accompanied the implementation of BPR. This resulted in the ineffectiveness of the BPR implementation in the educational offices. It is therefore, important that the educational offices leaders and job performers need to create common and shared understanding in installing new values and beliefs by developing different communication strategies like conducting workshops, training, coaching, seminars, creating awareness, distributing pamphlets, employing notice board, using billboard, printings on head letters, using memos and business cards. These could be initiated at Zonal and Woreda Education Offices level by leaders and job performers.
3. The study revealed that the follow-up, assessment and monitoring was getting looser. Moreover, job evaluation system was not clear or fixed. But continuous follow-up, supervision and monitoring have to be made to observe practical problems and to seek for remedies to the problems timely, especially at the grass root levels. Sometimes, job performers at the grass root levels complained that there was no immediate response to practical problems they encounter by the leadership. This delayed service delivery, dismissed reform use and demoralized lower level performers. At the broader level, such practices impede the transformation process underway by the educational offices. Therefore, job evaluation system should be clearly fixed. There should be a clear system as to how job performers in the same process and across processes could be evaluated fairly and in a transparent way that fits the nature of the offices. In this regard, the region was currently building BSC for all sectors. It encompasses the measurement and evaluation part which could be used in the education offices. In the near future it will be implemented and solve the aforementioned problem.
4. The study found out that provision of training and support to enhance the implementation of BPR in the educational offices under the study was poor. But, training on BPR need not be interrupted and it should be continuous. There are three reasons to justify this. One, there is always new blood of workers joining the education offices or turn-over. These new employees need adequate training to be effective. Second, there are always continuous innovations occurring. Best practices emerging for scaling up and weaknesses for being improved. These need to be developed into a self-training manual or workers and leaders need continuous training on them. The third issue is the focus of the training (both persons and levels). At higher levels, given that there are high professional staffs, equipping them with knowledge base might be enough. The short-term training may help. In the lower levels, given that there are enormous constraints and problems that call for linking training, practice and improvement; lower level training should be continuous and long-term effort. Thus, training on the concept and implementation technique of BPR should be

provided to Zonal and *Woreda* Education Offices leaders and job performers by Oromia Education Bureau professionals on a training of trainers' for a continuous and long-term bases. The trained leaders and job performers at the Zonal and *Woreda* levels should in turn provide training for the rest of job performers at the Zonal and *Woreda* levels on the continuous bases as needed.

5. The researcher recommends that further studies should be conducted so as to uncover further problems and come up with possible solutions with regard to the issue under study.

## 6. References

- i. Abdurahaman Abdulahi (2009). The Challenges and Achievements of Reengineering in Ethiopia Public Sector Organizations:Lessons for Six Selected Organizations. Addis Ababa: MA Thesis the Graduate School of Addis Ababa University (Unpublished).
- ii. Alter, A. (1994). "Re-engineering Tops List Again", computer world, Journal of Management Information Systems, Vol.28 No. 5 p.8.
- iii. Andrews, D. and Stalik, S. (1994). Business reengineering. The survival Guide. London: Yourdon press Englewood Cliffs.
- iv. Arendt, C. Landis, R. and Meister, T. (1995). "The Human Side of Change- Part 4", IIE Solutions,Journal of Management Review, vol.43 No.6 pp.2-7.
- v. Balaji, M. (2004). Reengineering an Educational Institute: a Case Study in NewZealand: <http://www.emeraldinsight.com/insight> Retrieved on 28 Nov, 2009.
- vi. Berihu Assefa. (2009). Business Process Re-engineering in Ethiopia: Retrieved on 29 Nov. 2009 from <http://www.grips.ac.jp/>.
- vii. Bennis, W. and Michael, M. (1995). The 21<sup>st</sup> Century Organization, Reinventing Through Reengineering. San Francisco: Jossey Bass Publishers.
- viii. Bushein, B., Markus, M. and Riley, P. (1994). "Precondition for BPR Success and How to Prevent Failures". Journal of management Information systems, Vol. 1787 No.32, Pp.7-13.
- ix. Carr, D. and Johansson, J. (1995). Best Practices in Reengineering: What works and what doesn't in the Reengineering Process. New York: Mc Graw-Hill.
- x. Clemons, E. (1995). "Using Scenario Analysis to Manage the Strategic Risks of Reengineering". Sloan. *Journal of Management Review*, vol.36 No.4, pp.6-10.
- xi. Chang, J.F. (2006).Business Process Management System: Strategy and Implementation. Boca Raton: Auerbach Publications.
- xii. Devanport, T. (1993). Process Innovation. Boston: Harvard Business School Press.
- xiii. Davenport, T. and Short, J. (1990) "The New Industrial Engineering Information Technology and Business Process Redesign". Journal of Management Review, vol.31 No.4, pp.11-27.
- xiv. Davenport, T. and Stoddard, D. (1994). "Reengineering Business Change of Mythic Proportions?" IS Quarterly, Journal of Management Information Systems, Vol. 1832 No.2, June, pp.1-7.
- xv. FDRE. (2001). Service Delivery Policy in the Civil Service. Addis Ababa: Artistic Printers.
- xvi. FDRE. (2002). Directives for Handling Service Users' Complaints in Civil Service Institutions. Addis Ababa
- xvii. Getachew Hailemariam and Richard, C. (2006). Civil Service Reform in Ethiopia: Success in two Ministries. Hull: University of Hull.
- xviii. United States General Accounting Office. (1997). Business Process Reengineering Assessment Guide. Version 3. PP 51-62.Assessed on December 20, 2009 from <http://www.gao.gov.com>
- xix. Griffin, R.W. (2000). Fundamentals of Management: Core Concepts and Applications. New Delhi: All Indian Publishers and Distributors Regd.
- xx. Grover,V., Jeong, S., kettinger, W. and Teng, J.(1995). "The Implementation of Business Process Reengineering". Journal of management Information systems, Vol.12 No.I.pp.39-44
- xxi. Guha, S., Kettinger, W. and Teng.J. (1993). "Business Process Reengineering Building a Comprehensive Methodology". Journal of management Information systems, Vol.28 No.4, pp.13-22
- xxii. Hammer, M. and Champy, J. (1993). Reengineering the Corporation. New York: Harper Collins Publishers,
- xxiii. Hammer, M. and Stanton, S. (1995). The Reengineering Revolution: A Handbook. New York: Harper Collins Publishers.
- xxiv. Jackson, N. (1997). "Business Process Reengineering 96", Management Services. Boston: Harvard Business School Press.
- xxv. Janson. R. (1992). "How Reengineering Transforms Organizations to Satisfy Customers", Journal of management Information systems, Vol. 38 No.6, pp.45-53.
- xxvi. Linda, D. (1997). The Right to Learn: A Blueprint for Creating Schools that Work. San Francisco: Jossoy-Bass Publishers
- xxvii. Linden, R. M. (1994) Seamless Government: A Practical Guide to Re-Engineering in the public Sector. San Francisco: Jossey Bass Publishers.
- xxviii. Linden, R. M. (1998). Workbook for Seamless Government, a Hand on Guide to Implementing Organizational Change. San Francisco: Jossey Bass Publishers.
- xxix. Malhotra, Y. (1996). "Enterprise Architecture: An Overview". University of Pittsburgh, Katz School of business, Retrieved from <http://www.emeraldinsight.comon> 23 April 2010.
- xxx. Mahtebu Yenehun. (2008). The Practice of Business Process Reengineering in Selected Ministries of Ethiopia and Bureaus of Amhara Region. Addis Ababa: MA Thesis Graduate School of Addis Ababa University (Unpublished).

- xxxi. Managing Barriers to Business process reengineering success: <http://www.emeraldinsight.com> (Retrieved on March 20, 2010).
- xxxii. Ministry of Capacity Building (MoCB). (2006). Business Process Reengineering. Unpublished.
- xxxiii. Ministry of Capacity Building (MoCB). (2007). Business process Reengineering: Training Manual. Unpublished
- xxxiv. Ministry of Education (MoE). (2005). Education Sector Development Program III (ESDP-III). Addis Ababa: MoE
- xxxv. Mische, M. (1996). Step-by-Step Reengineering: The comprehensive Guide. San Francisco: Jossey Bass Publishers.
- xxxvi. Morris, D. and Brandon, J. (1993). Re-engineering Your Business. New York: MC Graw-Hill, Inc.
- xxxvii. Muktar Kedir (2008). The leadership Challenges and prospects in implementing business process reengineering in the Oromia Civil Service. Addis Ababa: MA Thesis Azuza Pacific University (Unpublished).
- xxxviii. Obolonsky, N. (1996). Practical Business Re-engineering: Tools and Techniques for Achieving Effective Change. London: Kogan page Ltd.
- xxxix. Patching, A. and Waitleg, D. (1999). The Future Proof Organization: Practical Lessons in Leadership and Innovation for the 21<sup>st</sup> Century. Singapore: KHL Printing Co.
- xl. Ross, J. (1998). IT Infrastructure Management. London: Kogan Page Ltd. Scott, T. (1995). BPR in Higher Education Institutions of UK: <http://www.emeraldinsight.com/insight> (Retrieved on April 17, 2010).
- xli. Stewart, V. (1983). Change: The Challenge for Management. New York: MC Graw-Hill Book Company.
- xlii. Towers, S. (1994). Business Process Re-engineering: A Practical Handbook for Executives. Cheltenham: Stanley Thomas Ltd.
- xliii. Tyack, D. and Cuson, L. (1995). Tinkering Toward Utopia: A century of Public School Reform. Cambridge: Harvard University press.
- xliv. Thomas, M. (1994). "Business Process Re-engineering". Personnel Management. New York: Palgrave Publishing Ltd.
- xl. Weicher, M. and William, W. (1995). BPR Analysis and Recommendations: <http://www.emeraldinsight.com/insight> (Retrieved on March 29, 2010).
- xlvi. Yin, R. (2003). Case Study Research-Design and Methods. New Delhi: Sage Publications