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C O N T E N T

Assessment Of Business Process Reengineering Project And Its Implementation Performance In Addis Ababa City Administration

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ABSTRACT: In public sector institutions, business process reengineering (BPR) is a topic of wide interest. Government institutions can use BPR to enhance their performances in terms of reducing processes' cost and cycle time, increasing service quality, and increasing customers and employees satisfaction. However, the implementation phase of BPR pointed as the most challenging. Addis Ababa city administration is characterized poorly in the implementation of BPR system. The main objective of this study was to assess the business process reengineering project and its implementation performance in Addis Ababa city administration. The study employed both quantitative and qualitative approaches using data collection tools that include structured and un-structured questionnaire, focused group discussions and key informant interview. The SPSS statistic was used for the descriptive and inferential analysis. The findings indicate that the institutions have been practicing favorable results in BPR project and its implementation. The determinant factors contribute to the high level of performance. The coefficient of determination describes the influential power of the determinant factors. The Pearson Correlation Coefficient also describes positive relations and statistically significant between and among the determinant factors. Although the implementation process has brought tangible results, it is not free from some challenges. Weak involvement of managements; lack of establishing management teams who follow up and support the implementation processes; weak in existing data analysis; weak generating breakthrough ideas; and weak in employees training are the major challenging identified. Therefore, institutions should be openly and well communicated to the stakeholders and customers. If there is a good case to undertake the changes, the top management and employees must support the changes and drive it to the paradigm shift.

KEYWORDS: BPR Project, Implementation, Performance.

INTRODUCTION

Background of the Study

In the world of competition, change is the key word. In today's highly competitive and constantly changing market place, in order to thrive and operate successfully, it is inevitable for public institutions to give up obsolete ways of doing business and adjusts to changes in their environment (Hammer M, 2002).Business Process Reengineering (BPR) is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvement in critical contemporary measures of performance such as cost, service quality and speed (Hammer M. and J. Champy 1993).

According to Hossain A. (2014), many government institutions of the world changed and reengineered their business in order to achieve their customer's expectations and attain competitive advantage. Business process reengineering is dramatic change and design of workflows and business processes that represent the organizational structures, management systems, employee responsibilities and empowerment, performance measurements, incentive systems, skills development, and the use of information technology. Achieng N. (2014) found that business process reengineering has become useful weapon for any corporate organizations that is seeking for improvement in their current organizational performance and intends achieve cost leadership strategy in its operating industry. He recommended that reengineering process remains

effective tool for organizations striving to operate as effectively and efficiently as possible. Organizations are required to reengineer their business processes in order to achieve breakthrough performance and long term strategy for organizational growth.

Zaini Z. and A. Saad (2019), suggested that successful BPR model can result in great reductions in cost or cycletime, and improvements in quality and customer service. In public institutions where changes are going on at alarming speed, it is needed to switch over from rigid business style to quick, responding and flexible process. Business process re-engineering is the radical redesign of business processes to achieve dramatic improvements in critical aspects like quality, output, cost, service, and speed. Business process reengineering (BPR) aims at cutting down enterprise costs and process redundancies on a very huge scale.

According to Hagos S. (2012), for many years, the tight bureaucratic and task centered approaches of civil service institutions of Ethiopia led to fragmentation, overlap and duplications of efforts than being responsive, flexible and customer focus. To this end, Business Process Reengineering (BPR) has been considered as a government sector technique to help organizations fundamentally rethink how they do their work in order to dramatically improve customer service, cut operational costs, become responsive, flexible and customer focus. Abay A. (2011) described thatall government institutions of the Federal Democratic Republic of Ethiopia embarked in Business Process Reengineering (BPR) project and its implementation as groundwork to underpin result based performance management system and provision of seamless services to the public sector institutions.

According to Mberengwa I. and N. Daba (2011), in Ethiopia, Addis Ababa City Administration is implementing business process reengineering in order to improve the performance of its public institutions. During the period June to October 2008, experts drawn from different sectors participated in the redesigning and organizing of business processes through shifting from functional /departmental structure to process-centered organizing practices. Since 2004, Addis Ababa city administration has been endorsing BPR as a foundation for seamless service provisions to its customers in its all bureaus which comprise of ten sub-cities.

Problem Statement

Despite the significant growth of the BPR concept, ensuring the success of BPR implementation is still in considerations. Though public service institutions are embarked in BPR project and its implementation, still remain an issue to be addressed. Mberengwa I. and N. Daba (2011), conducted study on the effectiveness of BPR implementation in Addis Ababa City Administration. They also found that the number of employees in the city increased after reengineering due to new posts created during the reengineering process through the decentralization of some processes to the local levels (sub-city and kebele levels) of the city. Their study results further found that even though process selection was adequately done in many departments, some activities were not properly regrouped after processes were redesigned which resulted in multiple approvals and delays in decision making. They conclude that comprehensive planning for the full implementation of the process is considered as the major problem.

Mberengwa I. and N. Daba (2011) also found that employee participation during reengineering was weak. The front line employees did not get sufficient information and proper performance evaluation was not undertaken. Managers were not involved in the designing, coaching and advocacy roles, and are still engaged in operational and routine activities. Employee satisfaction was found to be low because there is no incentive system. The system as whole is not automated. According to Khalil O. (1997), BPR implementation failures mostly attributed to failure to implement BPR principles properly that include comprehensive planning, existing process analysis, designing new process, pilot testing and full implementation process. Muhammad N. (2013), also identified some of the common reasons pointed that include change management,

management heterogeneity, top management rigidity, lack of proper training, lack of resources, management competency and support, lack of leadership commitment, lack of proper communication strategy, lack of proper organizational structure and organizational culture, project planning and management and IT infrastructure.

Sibhato H. and A. Singh (2012) found that having BPR motivated by customer demands, effective utilization of resources, good information exchange and flow, continuous performance improvement, using technology, developing and communicating clear written goals and objectives, proper alignment of BPR strategy with the institution strategy, using progress evaluation are rated as the most critical success factors. Lack of employee training, unrealistic report to outsiders that hide actual progress of BPR implementation, management frustration with slow business results, lack of top management determination, top management reluctance to fund BPR implantations, employees' negative attitude, lack of top managers enthusiasm, lack of IT to support BPR requirements are the top ranked obstacles to BPR implementation in public service institutions. This implies that effectiveness of BPR implementation is below average and the institutions are not gaining the competitive advantages expected from the radical change

Prasad Y. (2015) conducted research on assessing the implementation and challenges of Business Process Reengineering (BPR) in Hawassa University. He found that BPR was not successfully accomplished which needs further effort in the future. Less attention for empowerment, improper application of management system, lack of change management accomplishment and insufficient management support were critical challenges in implementation of BPR. Prasad Y. (2015) also found that information technology, infrastructure, information technology usage, educating employees and comfort on the redesign process were critical success factors of BPR.

Tadesse W. (2019) found that the reform programmes were top down, lacking the required ownership from the side of lower-level leadership and employees. As a result, the reform programmes were not popular and did not enjoy a reasonable level of commitment at the bottom of the hierarchy where the reform efforts were to be brought down on the ground for implementation and institutionalization. The other finding demonstrated in this study was related to the fact that the reform agents as well as the process owners in the implementation endeavors were assigned not based on merit but political commitment.

Based on the theoretical and empirical literature review presented, certain research gaps have been observed among the researchers. The literature shows that there are many ways in which countries can reform their businesses and ensure professionalism in the reform system. However, these measures and efforts are dissimilar in different countries as well as in different institutions of a country. Thus, without examining the local context, drawing conclusions on the business process reengineering performance in the civil service institutions based on research outputs conducted somewhere else may lead to wrong decisions in the context of Addis Ababa, Ethiopia.

Therefore, it is necessary to conduct a study that assesses and realizes expectations of the goals of the institutions' business process reengineering implementation performance by identifying determinant factors affecting the current gap in BPR implementation performance. The institutions require the assessment of its implementation performance in relation with the determinant factors outlined by Davenport T. and J. Short (1990) and Hossain A. (2014). Therefore, based on the conceptual framework developed by these authors, in order to determine the performance of BPR project and its implementation, comprehensive planning, existing process analysis, designing new process, pilot testing and full implementation process are treated as the determinant factors. These variables are basically expected to solve the practical problems of the BPR reform. Since the problems are clearly defined, the aims and questions of this study are explicitly and clearly stated and are likely lead to problem solving outcomes of the institutions. Thus, the above statements guide the study in building up the following basic research questions.

Basic Research Questions:

a) What are the overall bundle performances of the BPR implementation?
b) Which factors dominantly predict the BPR implementation?
c) What are the challenges the institutions have been facing in the implementation process?

Objective of the Study

The general objective of the study was to assess the business process reengineering project and its implementation performance in Addis Ababa city administration. The specific objectives are:-

- To determine the overall responses of respondents;
- To identify the overall bundle levels of implementation performance;
- To describe the relations between and among the determinant variables;
- To identify the extent each overall determinant factor affects the performance;
- To determine the most influencing factors; and
- To pinpoint the challenges the institutions have been facing.

Scope of the Study

The scope of this study was employees who are working in the civil service institutions of Yeka Sub-city woerda 9, woreda 11 and Woreda 12 City Administration Offices of Addis Ababa city administration. The respondents were both service providers that include managers, experts and employees of the institutions who have direct contribution to BPR related activities. The sample of these selected bureaus was considered as respondents of the study.

Significance of the Study

The government has designed and is implementing strategies, policies and plans to guide and manage the overall development of the civil service institutions. Achieving high performance in service delivery through the development of determinant factors accelerated the implementation of BPR project is a key objective of the Government of Ethiopia. However, the management of the civil service institutions did not work on factors influence implementation performance of civil service institutions (Darge M, 2015). In this competitive environment it is necessary to know factors affecting BPR implementation; and know the level of their early responsive service provision performance in the institution.

This study lies in identifying the determinant factors affecting the BPR implementation.The findings of this study help both the management and employees of the institutions. It also helps policy makers and researchers. It helps the managements in understanding the most significant factors; solving practical problems and improving the BPR implementation performance that achieve their respective institutional goals. It also enables the employees to associate their performance and motivation with specific activities' results at work; and improve their performance.

In addition, knowledge emerging from this descriptive research finding will inform policy-makers to understand the determinant factors that enable them to appropriately identify the factors that will solve problems in early responsive and productivity of the institutions. The findings of this study will also be useful for academicians and stakeholders to design appropriate design for effective and efficient service delivery performance of the institutions.

LITERATURE REVIEW

Definitions and Concepts of BPR

According to Hammer M and J. Champy (1993), before business process reengineering (BPR) emerged, it was widely accepted by industries and business enterprises that a work should be broken down into its simplest tasks. This leaded to the structure of enterprises becoming hierarchical and functional in order to manage such divided tasks. In a world increasingly driven by the three Cs (Customer, competition and Change), institutions are on the lookout for new solutions for their business problems and to provide better products or services. Thus, the topic of BPR involves discovering how business process currently operate, how redesign these process to eliminate the wasted effort and improve efficiency, and how to implement the process changes in order to gain competitiveness. Hammer M and J. Champy (1993), proposed that BPR can help organizations out of crisis situations by becoming leaner, better able to adapt to market conditions, innovative, efficient, customer focused and profitable in a crisis situation.

According to Hammer M and J. Champy (1993), BPR is an organizational method demanding radical redesign of business processes in order to achieve greater efficiency, effectiveness, better quality, more competitive production and increase customer satisfaction. They also defined the BPR as "the fundamental rethinking and radical redesigning of business process to achieve dramatic improvement in critical contemporary measures of performance, such as cost, quality, services, and speed". These definitions comprise four keywords: fundamental, radical, dramatic and process. These four keywords of BPR implied that before redesigning the process understanding the fundamental business operation is necessary, while it ignores the underlying rules and assumptions of the old or traditional business processes to radically redesign the process for dramatic performance of business process that can be measured in terms of speed, cost and quality.

According to Lindon R. (1994), organize around outcomes; substitute parallel for sequential processes; bring downstream information upstream; capture information once at the source; provide a single point of contact; ensure a continuous flow of the main sequence; first reengineer, then automate; and challenge assumptions are the principles of BPR. Mekonnen N. (2019) suggested that government organizations shoud use Business Process Reengineering (BPR) to enhance their performances in terms of reducing processes' cost and cycle time, increasing service quality, and increasing customers and employees satisfaction. Kenneth N, et al. (2018) found that reengineering processes does not have to always involve large investments in technology for it to work. Especially for SMEs, it is possible to reengineer a process without having to make use of sophisticated technology or any technology for that matter.

Conceptual Framework

In order to successful in BPR projects, institutions should work hard to ensure a reasonable transition to the new process. According to Davenport T. and J. Short (1990) and Zigiaris S. (2000), BPR project process and its implementation process consist of specific steps aiming to a successful outcome. Hossain, A. (2014) also outlined the main steps for each methodology. He came up with new methodologies called "The true road to successful BPR". Therefore, the following are the common necessary factors identified by different literatures in the assessment of performance of BPR project and its implementation.

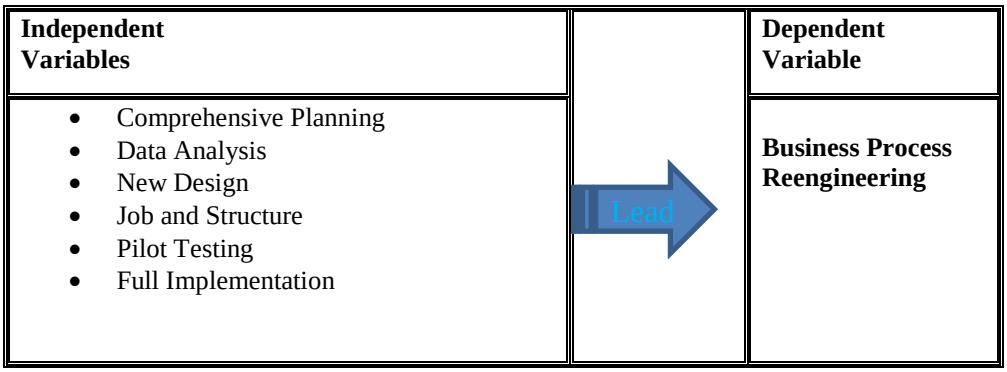

Figure1.1: Modified Conceptual Framework

Planning for BPR: -During the planning phase, the institutional top level management has to think about the BPR as positive view. According to Manganelli R. and M. Klein (1994), involving senior management in the planning of a BPR project and its implementation process is crucial to the success of the BPR project and implementation results. Top level management has to consider their vision and mission in front of their aim for the BPR design and implementation. Then, the institutions have to plan for the BPR project and its implementation process. The planning phase consists of the following components. Top level management understand the concept of BPR very well; has commitment to implement BPR; conduct discussions with its employees on BPR project; identify core and support business processes end to end to be redesigned; establish management teams who follow up and support the design teams; establish capable employees to the BPR project teams and assigned roles for each one of them; provide trainings to the teams; and allocate all the necessary resources.

Existing data analysis/ AS-IS: After having the plan, the organizations have to start existing data collection from the different resources like external and internal resources which require for clarifying current scenario in the business process. The data has to focus on top level vision and mission, current technology used by the organization, problem and treats faced, cost and time constraint in traditional business process etc. According to Zigiaris S. (2000), the data collection and analysis phase consists of the following components. The design teams should get trainings in the area of BPR design and implementation; understand the name of the core and support business processes; identify input, activities and output delivered; diagram the old high and detail level mapping; and identify the gap of the existing process and stakeholders' demands. After collecting all the data the BPR team will identifying the GAP of existing process and the factors which are affecting on the current business process and their impact level on the business. This phase is basically to understand and measure the existing processes to avoid the repeating of old mistakes and to provide a baseline for future improvements.

New BPR process design / TO-BE: In the BPR design process the BPR team will create step by step approaches for reaching the aim. Team will distribute the task among the all team member of BPR team. While design the BPR process the team will always have alternative which help to implement into the different scenario and situation. Most suitable alternative will get select by the team member and positive answer of their question which the team planned to find the BPR process. According to Zigiaris S, (2000) benchmarking, identify existing problems, rules, assumptions and assumption busting; brainstorm new ideas; describe inputs, outputs and stretch objectives of each new process; diagram the new high and detail level mapping; and performance standard of the new business process are the major steps.

Job and Structure: The institutional jobs and structure of a business should be considered fair game during reengineering. Reorganizing subunits to minimize unit interdependencies or hierarchal structure holds potential for reducing costs and improving productivity. Inevitably, reengineering may cause significant change in jobs, organizational structure and human resource architecture

(Zigiaris S, 2000). This stage should include organize jobs around outputs; redefine job titles; redeploy employees to new roles and responsibilities on the new tasks; organize human resources according to knowledge , skills and attitudes needed; and organize institutional structure.

Use of pilot testing: Pilot test is essential before going to full implementation of BPR projects. The objective of this stage is providing training to employees in the operation of new processes, so employees will feel comfortable in the changing job environment. It is essential to train employees to new roles and responsibilities. Thus, developing and providing training programs; establishing any attempts of resistance to change; and fulfilling all the requirements for the new business processes are the steps that have to be taken by executive management of the institution. This stage is introduction of new processes into business operations. The objective of the stage is to evaluate the new standards operating under the new processes, emphasizing the fact that working under the old processes is not an acceptable practice. In addition this stage also helps to realize the new desired standards with the actual performance during the pilot test. The institution has to have better continuous monitoring system to test the progress of the new business process basically in relation to the new performance standards. As the process gives the outcomes as per the plan, then it is acceptable.

Full implementation of the new business process: According to Hammer, M. and Champy, J. (1993), one of the steps in BPR methodology is the BPR project implementation. Performance management applies to organizations as well as individuals to monitor progress toward the goals and make adjustments to achieve those goals more effectively and efficiently. This performance management helps institution to measure and evaluate its performance. Setting performance measures and evaluation are necessary to indicate the attainment levels of performance goals. The management requires introducing systems of continuous monitoring to support the process; meeting the objective of the institution effectively and efficiently; attaining the customers satisfaction as expected; increasing its own competitiveness by improving quality; increasing its provisions by reducing waiting time of service delivery; increasing its own competitiveness by reducing costs; periodically assessing process performance results; attaining the desired results of the new business process; reorienting performance appraisal and reward process to the implementation of the new process; and encouraging managers and staff to use performance data to find ways of further improving the new process.

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STUDY METHODOLOGY

Study Areas

The study areas constituted three selected woreda offices of Yeka Sub-city of Addis Ababa city administration. The participants of this study were from these selected offices. The selected offices were based on the three sectors categorizations of the Federal Civil Service Institution. From each sector the offices were selected randomly. For the sake of similar characteristics, the respondents were taken from these offices that encompass office of Finance, Trade and Industry, Construction, Health and Public service, and Human resource development.

Study Population and Sample Size Calculation

There are eleven sub cities in Addis Ababa city administration. Although Addis Ababa city administration has ten sub cities, the choice of Yeka sub-city is selected purposely. Yeka Sub-city comprises of twelve worked a administration offices. Managements, experts and employees of each office were the total population of the study of which the respondents were selected randomly. These offices were taken in considering the similarities of their level of services, characteristics and functions in providing services to the citizens. Many statistical books discuss methods for estimating sample size. There are several software programs available to help with sample size calculation. The sample of this study is calculated by using Taro Yamane (Yamane T,

1973) formula with 95% confidence level. Accordingly, 240 respondents were considered as a sample of which 210 were correctly filled and returned. In addition to this sample size, interviews with top level managements and three focused group discussions consisting of 36 respondents were conducted in the study areas.

Study Design

The research design is intended to provide an appropriate framework for the study. A very significant decision in research design process is the choice to be made regarding research approach since it determines how relevant information for a study will be obtained. The choice of appropriate design largely relies on the type of the research questions that the study intends to deal with. It is also a procedural plan, structure and strategy of investigation; so it is concerned to obtain answers to the basic research questions (Kumar R, 2011). Since the study concerns the assessments of factors affecting BPR implementation peformance as it exists at present, the study uses the descriptive research approach. As Kothari, C. (2004) articulates, the major purpose of descriptive research is a description of the state of affairs as it exists at present.

Mixed research design is the most appropriate for this study. Both quantitative and qualitative data were collected. Both have their own distinctive character and philosophical foundation that make them suitable for the study. The quantitative research approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal fashion. It is specific, well structured, and is tested for their validity and reliability. On the other hand, the qualitative data were collected. Qualitative data collection is exploratory; it involves in-depth analysis. Its collection methods mainly focus on gaining insights, reasoning, and motivations; hence, they go deeper in research.

Instead of concentrating only on the response of the structured questionnaire, the researcher triangulates the data that was gathered through questionnaire with the data that was obtained from interviews, focused group discussions, and the related document reviews. The importance of collecting and considering primary and secondary as well as qualitative and quantitative data is used to triangulate and supplement the diverse data generated from different sources which in return is used to make the data and the result of the research findings reliable.

Data Collection Tools

Data collection tools (questionnaire, interviews and focused group discussions) were used to gather the required data. For the quantitative data, well-structured questionnaire with close-ended responsive/ numerical questions/ and open-ended non-numerical questions/ narrative/ were used to gather the data from the respondents. The primary data were collected primarily from first hand sources through these data collection instruments. The close-ended quantitative method was organized using the Likert five scale format considered on 1-5 points scale. '1' represents the lowest level of agreement or high disagreement, whereas '5' represents the highest level of agreement or high agreement. The points of the scale indicate the degree of agreement level of the respondents.

For the qualitative data, semi-structured questionnairewere used to gather the data through interview from top level managements of the institutions; and through focused group discussions from a mixture of customers, employees, experts and middle level managements of the institutions. The secondary data were collected from the offices' quarterly and yearly performance reports; and research findings of various scholars on the topic under investigation. The importance of collecting and considering quantitative and qualitative as well as primary and secondary data were used to triangulate and supplement the diverse data generated from different sources which in return used to make the research findings reliable.

Data Quality

Data quality were assured using appropriate data collection process techniques such as giving orientation to data collectors about the contents of the questionnaire. The questionnaire is distributed for the respondents to be filled in with the help of data collectors. Data collectors assist the respondents in case of difficulties in filling the questionnaire; and, in case, inform problems that countered at the time of data collection immediately to the researcher; and the researcher take appropriate solutions. The interviews and focused group discussions also conducted by both the researcher and data collectors. Questionnaires checked for missing values and inconsistency. Those found to have missing values and inconsistencies were excluded from the study and considered as non-respondent.

Data Analysis Method

After the completion of data collection process, data screening, coding, entering and analyzing is made so as to check the consistency and validity of data collected with different tools. Both quantitative and qualitative data were used for the analysis. The quantitative data is analyzed through both descriptive and inferential statistics using SPSS software version 25(Statistical Package for Social Science).The descriptive statistics (frequency distribution, percentile, minimum, maximum, mean and standard deviation) were used to examine the general level of the determinant factors.

The aggregate mean value of the responses on all the determinant factors that describes above the cut-off point of 2.5 is acceptable. According to Yalegama S, et al. (2016), the result below 2.49 shows disagreement or unacceptable, the result in between 2.50 and 3.34 shows average agreement which is acceptable and the result in between 3.35 and 5.00 shows high agreement which is more acceptable to the level of performance of civil service of the institution. The following table describes the level of agreement in civil service performance.

Table: 3.1 Standard levels of decisions

Low (Disagreement)	Average (Agreement)	High (More Agreement)
< 2.49	2.50 - 3.34	3.35 - 5.00
<49.9%	50% - 66.9%	>=67%

Source: Adopted from Yalegama, Chileshe and Ma (2016)

The inferential statistics (reliability test, correlation coefficient test and regression analysis) is also used to consider the consistency, relationships and the extent of the effects of the independent variables on the dependent variable. The qualitative data is also used for the triangulation and discussion analysis, basically in finding out the major problems encountered in practicing the management competencies effect on civil service performance of the institutions.

Reliability test: - Internal consistency reliability is a measure of consistency between different items of the same construct. Cronbach's alpha is a reliability test designed by Lee Cronbach in 1951. According to Lombard M. and M. Senekal (2015), coefficients of 0.90 or greater are always acceptable, 0.80 or greater is acceptable in most situations and 0.70 may be appropriate in some exploratory studies. Therefore, for this study, R-value equal to 0.70 or greater is accepted.

Correlation coefficient test: - Pearson correlation coefficient is a static tool that indicates the degree to which two variables are related to one another. Thus, for testing the relationship between and among the variables, Pearson correlation coefficient is calculated. According to Ahmed M. (2015), the sign of a correlation coefficient (+or-) indicates the direction of the relationship between-1.00 and + 1.00. Variables may be positively or negatively correlated. A positive

correlation indicates a direct positive relationship between two variables. Anegative correlation, on the other hand, indicates aninverse, negative relationship between two variables. The range of correlation coefficient(r) and strengthens of the correlation is described. According to the above authors, the range of correlation coefficient(r) and strengthens of the correlation are described as follows.

Table3.2:Pearson Correlation

Correlationcoefficient(r)	Strengthofthe correlation
From0.01upto0.09	Negligibleassociation
From0.10upto0.29	Lowassociation
From0.30upto0.49	Moderateassociation
From0.50up to0.69	Substantialassociation
From0.70andabove	Verystrongassociation

Multiple Regressions Mathematical Equation: - The independent variables treated in the study are planning, existing data analysis, new design of business process, job and structure, pilot testing and implementation. On the other side, the performance of BPR implementation is considered as the dependent variable. In order to measure the effects of the independent variables on the dependent variable, Multiple Regression Mathematical Equation is used. The correlation analysis also used to determine the relationships among the independent variables.

The Multiple Regression Mathematical Equation is described as:

BPR Performance=f(CP, EDA, NPD, JS,PTandFI)

$$\mathbf{BPRP=\beta_0+\beta_1 CP+\beta_2 EDA+\beta_3 NPD+\beta_4 JS+\beta_5 PT+\beta_6 FI}$$

Where:-
BPRP=Business Process Reengineering Performance
PL=Comprehensive Planning
DA=Existing Data Analysis
ND =New Process Design
JS = Job and Structure
PT=Pilot Testing
FI = Full Implementation

With the help of the above given equation, the effects of independent variables on the dependent variable are measured. Is the intercept term that gives the mean effect on dependent variable of all the variables excluded from the equation, although its mechanical interpretation is the average value of BPRP when the stated independent variables are set equal to zero. β_1,β_2,β_3,β_4,β_5 and $\beta_6$referto the coefficient of the irrespective independent variable which measures the change in the mean value of BPRP, per unit change in their respective independent variables.

RESULTS AND DISCUSSIONS

General background information of the respondents

In this section, details are given of selected background information of the respondents. The literature highlights the importance for managers and employees of public service institutions to examine the services that are provided to its customers in order to commit themselves to dynamic improvements in service provisions. Now a days, service provisions are being driven by need assessment, which requires desired goals of public sector institutions that is more strongly directed to the service provisions to their customers. The items in the evaluation of the BPR

implementation performance is used as an instrument for closing the gap between the current views and desired achievements of the public sector institutions. Accordingly, the background information of the respondents is also important in giving professional responses to each question.

Table: 4.1 Gender, age and educational level of the respondents

No.	Items	Scale	Frequency	Percentage (%)
1	Sex	Female	65	31
		Male	145	69
		Total	210	100
2	Age	18-28	100	47.6
		29-35	85	40.5
		36-65	25	11.9
		Total	210	100
3	Qualification	First degree	205	97.6
		Diploma	5	2.4
		Total	210	100

Source: Own survey, 2021

In the above table 4.1, the general background information of the respondents is described. The information includes sex, age and qualification of the respondents. Position in the institution and total work experience in any institution were also identified. Most of the respondents 145 (69%) were male and 65(31%) were female that were included in the study area. Most of them, 100 (47.6%), were youths who are in the age of 18 to 28 year. When we observe the educational background of the respondents, 205 (97.6%) of the respondents were first degree holders. Only 5 (2.4%) respondents were diploma holders.

Table: 4.2 Position and work experience of the respondents

1	Position in the institution	Manager	5	2.4
		Process owner	30	14.3
		Team leader	75	35.7
		Expert/Employee	100	47.6
		Total	210	100
2	Total service year in the institution	< 2 years	55	26.2
		2 to 5 years	55	26.2
		5 to 10 years	65	31
		Above 10 years	35	16.6
		Total	210	100

Source: Own survey, 2021

The position of the respondents in their respective institutions was also described. Most of the respondents, 100 (47.6%), were experts or employees of the institutions, 75 (35.7%) were team leaders, 30 (14.3%) were process owners, and only 5 (2.4%) of the respondents were managers of the institutions. With regard to total service year in the institution of the respondents in their current institution, majority of them, 65 (31%), have service experience of between five to ten years. Fifty five (26.2%) have service experience of less than two years and 55 (26.2%) of them have service year of between two to five years. Only 35 (16.6%) of them have total service year of above ten in their current institution. The data indicates that most of the respondents are male. In relation to age structure of the respondents most of them are youths. In terms of educational background of the respondents most of them were first degree holders. The data also describes that most of the respondents have service experience of above five years in their current institutions. Most of the respondents are experts and team leaders who are familiar with services provided for the customers of the institutions. The data also describes that most of the respondents have total service year of above five years in their current institutions.

The Overall Responses of the Respondents

In this section, details are given to the items of the assessment of the Business Process Reengineering Project and its Implementation Performance in Addis Ababa City Administration. The service providers' perception in the assessment process is used as an instrument for identifying the gap between the desired results and achieved results in the implementation process in the institutions. As indicated in the methodology section, 240 questionnaires were distributed to the respondents out of which 210 were correctly filled and returned. In addition to the structured questionnaire, three focused group discussions and nine interviews were conducted. The results in terms of the items of the elements of the BPR implementation performance are described as follows.

Table 4.3 shows the respondents average of the overall responses of each items of the determinant factors. The responses of the individual items are summarized under each determinant factor. Each frequency describes the average responses of each item. Accordingly, 81% of the total respondents responded to moderate level and above while only 19% of the total respondents show below the moderate level. The result implies that the institutions practice a well-accepted performance in the implementation of good governance.

Table 4.3: The average responses of the overall bundle of the determinant factors

No.	Determinant Factors		Response Level				
			Str. disagree	Disagree	Moderate	Agree	Str. agree
1	Comprehensive planning	Frequency	9.625	30.5	74.25	73.25	16.87
2	Existing data analysis	Frequency	7	31.2	75.6	72	23,8
3	New process design	Frequency	8.6	31	67.3	70.2	32.8
4	Job and structure	Frequency	7.75	24.75	61	67.5	49
5	Pilot testing	Frequency	8	34.66	69.3	56.3	41.66
6	Full implementation	Frequency	12	20.4	66.2	85.6	25.88
Average of Overall Responses			**9**	**30**	**70**	**73**	**28**
Overall Percent (%)			**4.29**	**14.29**	**33**	**34.76**	**13.3**
N=210							

Source: Own survey, 2021

As can be observed from Table 4.3, the respondents responded in each items of the independent variables. The responses of the individual items reveal differences among respondents. However, the mean values of all the responses of the items of the determinant factorsshow above the moderate level (i.e 3.4315). This shows that the implementation performances of each determinant variable are well. This implies that the institutions practice is well accepted performance in BPR.

Table 4.4: The minimum, maximum, mean and standard deviation values of the responses

Variables	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Std. Error	Statistic
BPR performance	1.71	4.86	3.4789	.05611	.81306
Comprehensive planning	1.50	4.50	3.2726	.04370	.63333
Existing data analysis	1.60	5.60	3.3638	.05105	.73973
New process design	1.67	8.00	3.4452	.06003	.86996
Job and structure	1.67	5.00	3.5964	.05561	.80588
Pilot testing	1.67	4.67	3.4243	.06045	.87601
Full implementation	1.20	4.60	3.4390	.05607	.81246
Average			**3.43**		
Valid N =210					

Source: Own survey, 2021

Correlation Analysis: The Pearson Correlation Coefficient is a statistic tool that indicates the degree to which two variables are related to one another. The sign of a correlation coefficient (+or-) indicates the direction of the relationship between-1.00 and + 1.00. Variables may be positively or negatively correlated. A positive correlation indicates a direct positive relationship between two variables. A negative correlation, on the other hand, indicates an inverse, negative relationship between two variables (Ruud Wetzels and Eric-Jan Wagenmakers, 2012). Table 4.5 below clearly shows that the relationship between two variables is negligible, low, moderate, substantial, or very strong.

Table4.5: Pearson Correlation

Correlation coefficient(r)	Strengthof thecorrelation
From 0.01upto0.09	Negligible association
From 0.10upto0.29	Lowassociation
From 0.30upto0.49	Moderateassociation
From 0.50upto0.69	Substantialassociation
From 0.70and above	Very strong association

Source: Kotrlik J, et al. (2011)

Determining the degree of association between the determinant factors and BPR performance is the main purpose of conducting an analysis using Pearson correlation coefficient. So, in this section the hypotheses were tested based on the correlation result summarized intable4.6below.

Table 4.6: Pearson Correlation Analysis between Independent variables and dependent Variable

Variables		BPR performance	Comprehensive planning	Existing data analysis	New process design	New process design	Pilot testing	Full implementation
Pearson Correlation	BPR performance	1.000	.627	.280	.507	.719	.805	.782
	Comprehensive planning	.627	1.000	.515	.564	.524	.700	.654
	Existing data analysis	.280	.515	1.000	.613	.304	.412	.277
	New process design	.507	.564	.613	1.000	.594	.719	.531
	Job and structure	.719	.524	.304	.594	1.000	.787	.782
	Pilot testing	.805	.700	.412	.719	.787	1.000	.856
	Full implementation	.782	.654	.277	.531	.696	.856	1.000
	Correlation is significant at the 0.01level							

Table4.6 describes the correlation analysis between the independent variables and the dependent variable; and among the independent variables. The result of the existing practices in independent variables and dependent variable shows that pilot testing (r= 0 .805, p=0.000), full implementation (r=.0.782, p=0.01) and job and structure (r=.0.719, p=0.000) havevery strong association, positive relationship and statistical significant. Comprehensive planning (r=.0.627, p=0.023) has substantial association, positive relationship and statistical significant. New process design (r=.0.507, p=0.068) has substantial association, positive relationship but statistical insignificant.

Regression Analysis: Regression analysis is a reliable method of identifying which variables have impact on a topic of interest. Regression analysis is a systematic method that is used to investigate the effect of one or more predictor variables on dependent variable. The process of performing a regression allows us to confidently determine which factors matter most, which factors can be ignored, and how these factors influence each other. Thus, multiple linear regression equation is used in order to investigate the effect of each and overall bundle of selected determinant factors on the dependent variable. The coefficient of determination (denoted by R^2) is a key output of regression analysis. It is interpreted as the proportion of the variance in the dependent variable that is predictable from the independent variable. The coefficient of determination is the square of the correlation (r) between predicted variable and actual variable; thus, it ranges from 0 to 1.An R^2 between 0 and 1 indicates the extent to which the dependent variable is predictable.

Table 4.7: Multiple Linear Regression Equation Summaries

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	Sig.
1	.842[a]	.709	.701	.44486	.709	82.522	6	.000
a. Predictors: (Constant), Comprehensive planning, Existing data analysis, New process design, Job and structure, Pilot testing,Full implementation								
b. Dependent Variable: BPR Performance								

As shown in table 4.7, the overall bundle of determinant factors explains 70.9% (R^2 = 0.709) of the dependent variable. This suggests that 70.9% of BPR performance level in the institutions clearly depends on the independent variables while the remaining 19.1% is determined by other unaccounted factors in the study. If the P value for the F-test of overall significance test is less than significance level, we can reject the null-hypothesis and conclude that the model provides a better fit. The result F=526.050 which is greater than 1 and P<0.01 indicates that the combination of determinant factors have positive effect on good governance which is statistically significant and confident at 99%.

Table4.8Multiple Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.386	.198		1.949	.053
	Comprehensive planning	.171	.075	.133	2.295	.023
	Existing data analysis	.027	.056	.024	.475	.635
	New process design	.110	.060	.118	1.838	.068
	Job and structure	.229	.063	.227	3.660	.000
	Pilot testing	.380	.095	.409	3.985	.000
	Full implementation	.256	.078	.256	3.294	.001

N=210,AdjustedRSquare=0.709,F=82.522, over all model significance = 0.000

Table 4.8 compares the relative contribution of each independent variable by taking the beta value under the unstandardized coefficients. The higher the beta value indicates the strongest its contribution to the dependent variable. Accordingly, pilot testing (Beta=0.380) makes the strongest contribution in explaining the dependent variable in which the results revealed that, a one unit increase in pilot testing would lead to a 0.380 unit increase the level of BPR performance and followed by full implementation and job and structure(B=0.256, B=0.229) respectively.

Comprehensive planning, job and structure, pilot testing and full implementation contribute to the dependent variable with beta values of B= 0.171, B=0.229, B=0.380 and B= 0.256 respectively. These variables have positive relationship and have statistically significant contribution (Sig < 0.05) for the prediction of the dependent variable. On the other hand, existing data analysis (B=0.027, Sig.= 0.635) and new process design(B=0.110, Sig.= 0.068) have positive relationship buttheyhave statistically insignificant contribution for the prediction of the dependent variable.

The equation of multiple regressions is built on dependent variable and independent variables. The objective of using regression equation is to make more effective at describing and predicting the stated variables based on their contributions to the dependent variable. Therefore, using the result in the regression coefficient described in table4. 6, the estimated regression model is shown below.

$$\mathbf{Y=0.386+0.171X_1- 0.027X_2-0.110X_3 +0.229X_4 +0.380X_5 +0.256X_6}$$

BPR Performance=0.386+0.171 Comprehensive planning- 0.027 Existing data analysis- 0.110 New process design+0.229 Job and structure+0.380 Pilot testing +0.256 Full implementation

The beta value of independent variable (comprehensive planning) is 0.171 with value 2.295 and significant level of .023. The beta value of independent variable (existing data analysis) is -0.027 with t value-0.475and significant level of .635.The beta value of independent variable (new process design) is -0.110 with t value -1.838 and significant level of .068. The beta value of independent variable (job and structure) is 0.229 with t value 3.660 and significant level of .000. The beta value of independent variable (pilot testing) is 0.380 with t value 3.985 and significant level of .000. The beta value of independent variable (full implementation) is 0.256 with t value 11.558 and significant level of .000. The beta value of independent variable (rule of law is 0.107 with t value 3.294 and significant level of .001.

These beta values indicate the amount of change in the dependent variable due to changes in independent variables. Accordingly, pilot testing, full implementation, job and structure and comprehensive planning have positive relationship and statistically significant at P<0.05with the dependents variable. This implies that the null hypotheses of the four independent variables (H0) are rejected. On the other hand, both new process design and existing data analysis have negative relationship and statistically insignificant at P >0.05with the dependent variable. This implies that the null hypotheses of the two independent variables (H0) are accepted.

4.2 Discussions

Tadesse W. (2019) said that the Ethiopian government has been engaged in several reform programmes to improve the delivery of services within the public sector. It has been found that these public service reform programmes are mainly national in terms of agenda. The reform programmes were initiated in line with the introduction of a market-led economic system and as a part of a structural adjustment programme in 1991.From this reform tools, one is Business Process Reengineering. Sibhato H. and A. P. Singh, (2012) found that although the desired and stretched

goals and objectives of BPR are clearly written and documented in the institutions, these goals and objectives were not well communicated and set in to the staff members mind and attention. Consequently, the institutions are unable to manage and accomplish the goals and objectives. Trying to change too much too quickly; making business mistakes due to pressure to make quick results; BPR created unfriendly working environment; lower employee productivity; lower employee moral for implementing BPR; resignation of productive personnel and employee high resistance to change were the major problems. They also found that the current status of BPR is rated by the respondents to be below the moderate extent in the Likert scale in the institutions. This implies effectiveness of BPR implementation is below average and the institutions are not gaining the competitive advantages expected from the radical change.

Prasad Y. R. (2015) found that the extent of BPR implementation did not exceed average value of (65 percent) which recommendations of BPR are not successfully accomplished which needs further effort in the future. Khoshlafz M. and S. Hekmati, (2016) found that all t-test values of the independent variables are statistically significant, which means the relationships of all the variables are significant ($\alpha = 0.05$). Al-Mashari, M. and M. Zairi, (1999) mentioned that many BPR actions fail without paying attention to many factors. As was mentioned earlier literature in the problem statement, numerous researchers have found the weak performance of BPR projects and its implementation. Numerous researchers (e.g. Mberengwa I and N. Daba (2011); Muhammad N. (2013); Tadesse W. (2019); Sibhato H. and A. P. Singh (2012)) have also identified weak performance of BPR projects and its implementation.

Mberengwa I and N. Daba, (2011) found that employee participation during reengineering was weak. The front line employees did not get sufficient information and proper performance evaluation was not undertaken. Managers were not involved in the designing, coaching and advocacy roles, and are still engaged in operational and routine activities. Employee satisfaction was found to be low because there is no incentive system. However, employees‟ efforts to achieve the set standards and improve service delivery and their initiation for change improved despite the fact that the system as whole is not automated. Further, accountability and responsibility of management also improved as a result of the BPR.

Muhammad N. (2013) also identified some of the common failure reasons pointed that include change management, management heterogeneity, top management rigidity, lack of proper training, lack of resources, management competency and support, lack of leadership commitment, lack of proper communication strategy, lack of proper organizational structure and organizational culture, project planning and management and IT infrastructure.

However, some of the researches correlated with accepted performance of BPR in the government institutions (e.g., Larsen, M. and M. Myers, 1997) and N. Mekonnen (2019)). Most of the factors correlated with this performance include comprehensive planning, training, pilot testing and organizational structure. Most of the factors (reviewed earlier) correlated with success were include senior management support and vision was present, as was a strong project leader. Additionally, staff in the project team came from different institutions and could therefore understand the organization structure, culture, and processes from each perspective. All members of the team indicated that the team environment and spirit was one of the aspects they enjoyed most about the project. The results of these earlier studies are in line with this study in most causes of the weak predictors of the dependent variable.

This study found that 81% of the total respondents responded to moderate level and above while only 19% of the total respondents show below the moderate level. The result implies that the institutions practice a well-accepted performance in the implementation of good governance which favors the result of some earlier study. The mean values of all the responses of the items of the determinant factors how above the moderate level (i.e. 3.4315).The Pearson Correlation Coefficient indicates a direct positive relationship between the variables. The overall bundle of

determinant factors describes 70.9% (R^2 = 0.709) of the dependent variable while the remaining 19.1% is determined by other unaccounted factors in the study. Comprehensive planning, job and structure, pilot testing and full implementation have positive relationship and statistically significant contribution (Sig < 0.05) for the prediction of the dependent variable. On the other hand, existing data analysis and new process design have negative relationship and have statistically in significant contribution for the prediction of the dependent variable.

Involving senior management in the planning of a BPR project and implementation process is crucial to the success of the BPR project and implementation results. However, the planning phase is not free from some limitations. The responses from few respondents indicated their disagreement with the preconditions they observe on the open-ended section of the questionnaire. The responses from the focused group discussions and interviews also described some limitations in planning phase. Low awareness in understanding concepts of BPR; low commitment of employees to implement the new business processes; lack of training on BPR; lack of employees participation in preconditions phase; lack of proper team selection; lack of proper planning concepts and skills for the planners; lack of basic necessary knowledge, skills and attitude of process owners and employees of the institutions before initiating the BPR project; and lack of understanding and identifying core and support business processes of the institutions are the problems that were identified.

The data collection and analysis and designing new process are also not free from some limitations. Lack of training on how to collect and analyze the data of old processes; limitation in customers and stakeholders' needs and problems identification; insufficient data; and undeveloped enough data collection systems are the problems that were identified. The design of the new business processes also describes that the existing rules and problems were not identified clearly, so the existing rules and assumptions were not busted; the new business processes of all institutions of the city administration are unique which did not consider the resources and skilled human resources availability in each institution; no customization of the activities and standards according to the respective institutions; and putting performance standards for the services were not based on critical data gathered.

As BPR results in a major structural change in the form of new jobs and responsibilities, it becomes a prerequisite for successful implementation to have formal and clear descriptions of all jobs and responsibilities that the new designed processes bring along with them. However, the organization of jobs and structure approach phases problems that include lack of appointment of the right man at the right position; improper of working areas particularly the layout of the offices are not much to provide services to disabilities, elders, even for adults because the process owners who have daily contacts with the customers are on the fourth floor which is difficult to pass the way; awareness creation training or communication on jobs and structure was not conducted with the employees; and unfair organization of jobs and redeployment of employees on the same job in the institutions, because in some institutions there are many employees where as in other institutions there are few employees which was not fair in service provisions. The provisions of the training to the workforce and weak in pilot testing were the problems pinpointed. The desired results in the full implementation have also limitations. The problems include low provision of productivity/services; waiting time in the corridor of the institutions; no revision of BPR standards for further improvement; standards are not as designed; and existing gaps between the theories and practicing of BPR implementation within the institutions.

Generally, this study found well accepted performance of the BPR project and its implementation results which favors some of the earlier researches. Based on the data collected from focused group discussions and key informants, this study found similar problems. However, the reliability and validity testing approaches of the result describes against the earlier researches which conclude the weak performance of BPR project and its implementation.

CONCLUSION AND RECOMMENDATION

Conclusion

For the sake of ensuring clear understanding in the implementation process of BPR and its implementation, the conclusion is made short and precise. Accordingly, based on the data analysis, interpretation and results, I have come up with the following conclusion. In general, the implementation process of BPR project and its implementation performance have contributed favorable results to achieve the desired results of the institutions. The BPR implementation performance of each determinant variable is well accepted. The overall bundle of determinant factors explains high implementation performance of the project. However, existing data analysis and new process design have statistically in significant contribution for the prediction of the dependent variable.

Findings indicate that most (81%) of the total respondents responded to moderate level and above. The mean values of all the responses of the items of the determinant factors show above the moderate level (i.e. 3.4315). The Pearson Correlation Coefficient indicates accepted and direct positive relationship between all variables. The overall bundle of determinant factors describes 70.9% ($R^2 = 0.709$) the dependent variable. The regression analysis results that comprehensive planning, job and structure, pilot testing and full implementation have positive relationship and statistically significant contribution (Sig < 0.05) for the prediction of the dependent variable. However, existing data analysis and new process design have statistically in significant contribution for the prediction of the dependent variable. The result implies that the institutions practice a well-accepted performance of BPR project and its implementation.

Although the findings have brought about tangible results, it is not free from some challenges. The findings described some failure factors associated with the BPR design and implementation process. Lack of understanding BPR concepts; lack of establishing management teams who follow up and support the design teams; lack of leadership commitment and support by senior management; insufficient understanding about existing data; failure to generate breakthrough ideas; failure to assess project performance in the early stages of business reengineering efforts to provide feedback; failure to effectively monitor progress of performance standards according to the schedule; lack of continuous employee training; unrealistic report that hide actual progress of BPR implementation; and employees' negative attitude are the major obstacles to BPR implementation in public service institutions.

Recommendation

The performance of BPR project and its implementation results has had both positive effects and challenges. Based on the findings and conclusion made, I have come up with the following recommendations.

- ❖ In order to undertake BPR, the most important factor to ensure success of BPR implementation is to analyze the current situation to identify goals, objectives and possible strategies. Public institutions should develop and practice in analyzing the existing data analysis and new business process design by identifying the core and support business processes.
- ❖ To publicize the goals, objectives and strategies, the institutions should be openly and well communicated to the stakeholders. If there is a good case to undertake the continuous monitoring and supporting the progress, the top management and employees drive it through to success.
- ❖ To bring dramatic improvements, the implementation process must be in accordance of performance standards. Public institutions should develop citizen charter and communicate the customers and stakeholders through training, media, brochure etc. The institutions should

conduct continuous customers' needs and problems to achieve the objects of performance standards and improve customers' satisfaction. All provided services should be in accordance with the sated performance standards.

- ❖ Institutions should provide continuous capacity building trainings to develop the capacity of service providers. Institutions should develop continuous awareness creation training to ensure efficient and effective implementation of service provisions.
- ❖ Institutions should allocate all the necessary resources that mainly include skilled human power, office furniture, and office layout to provide services effectively and efficiently. Institutions should sustain employees by developing different rewarding and incentive systems to decrease turnover and sustain employees in the institutions.

At last to answer the dynamic service demand of customers and further improvements of service provisions the institutions should understand the strengths that should be improved and identify problems that should be solved, in such a way that the institutions can achieve the desired objects.

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