INTRODUCTION

All countries in the world are trying hard to achieve the goal of economic development. This is sought to be achieved through development process along with the realization of welfare of the masses. The main administrative mechanism of resource mobilization and utilization is through the budget mechanism, popularly known as line item budgeting, which is adopted as a matter of tradition for centuries. With many deficiencies in this traditional budgeting system, the program and performance budgeting (PPB) is advocated as an administrative mechanism to realize the twin objectives of development and mass welfare. The concept of PPB envisages the achievement of result-driven government to achieve success not by how much is budgeted but by what effects or what impact such spending has on the economy and society. Since the middle of the twentieth century, the pressure to spend more effectively and develop better budgeting techniques has resulted in an almost universal acceptance that budgeting is not only about planning for inputs, but it is also about planning for the results that governments want to achieve.

RISING PUBLIC SPENDING

Every country in the world is passing through the bandwagon of mass welfare. In fact, governments have taken the task of mass welfare as a public responsibility. This responsibility is often reflected in government spending. The World Bank [2004:32] quotes “Health and education alone account for about a third of aggregate government spending, with the average slightly lower in poorer countries and regions. But there are wide variations across countries, even within the same region. Health and education spending accounted for 13 percent of public spending in Sierra Leone in 1998 but 34 percent in Kenya – 18 percent in Estonia in 1997 but 59 percent in Moldova in 1996. Social security and welfare spending, much of it directed to improving
health and education, typically makes up another 10-20 percent of aggregate spending.

**REASONS FOR PUBLIC SPENDING**

Public spending is spurred by two main reasons. Firstly, because of market failures, the volume of service produced and consumed would be less than optimal from society’s standpoint without government intervention. Market failures also relate to provisioning of imperfect information, which leads to less optimal consumption level [Stiglitz: 2000]. These market failures call for government intervention.

Secondly, public spending is spurred by equity concept, which aims at reducing the gaps between the rich and poor in availing the service for improved standard of living. The United Nations Universal Declaration of Human Rights assert an individual’s right to “a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care” and a right to education that is compulsory and “free, at least in the elementary and fundamental stages.”

On the whole, market failures and social justice or equity are normative justifications for public responsibility, which results in the rise of public spending.

**NEGLIGIBLE OUTCOMES**

It is a paradox that public spending on basic services is on the rise and the outcomes are far below the expectations. The World Bank [2003:20-24] documents the negative outcomes of public spending: (i) Outcomes are substantially worse for poor people; (ii) Affordable access to service is low, especially for poor people; (iii) Quality of service has a range of failures; and (iv) services are dysfunctional.

**THE DEVELOPMENT GAP**

The negligible outcomes have resulted in several development gaps having the dimensions of economic status, social status and cultural status in different economies of the world. It is observed that the Republic of Yemen has comparatively lower achievements than India. Further, the relevance of
PPB in Yemen arises from two reasons. Firstly, the low level of development necessitates a higher level of investments with higher effectiveness. Secondly, a higher level of investment made in the Republic of Yemen taking the example of educational expenditure of 32.80 per cent of gross domestic products also needs effective implementation of the several programs.

THE PROBLEM

Public service has become the bandwagon of all the governments in the world. Its echo is more profound in developing countries. However, the unresolved issue is whether there is an assessment of the effectiveness with which such public expenditures have been incurred and whether the monitoring agencies have cared to control the progress of the public service delivery to achieve the desired result from the resources expended. Understanding of the gravity of the situation, the World Bank [2004:7] quotes the study conducted by Diaz-Cayeros and Magaloni [2002] in this words: “In 1989 Mexico introduced PRONASOL (Programa Nacional De Solidaridad, or National Solidarity Program), a poverty alleviation program that spent 1.2 percent of GDP annually on water, electricity, nutrition, and education construction in poor communities. Assessment of the six-year program found that it reduced poverty by only about 3 percent. Had the budget been distributed to maximize its impact on poverty, the expected decline would have been 64 percent. It would have been 13 percent even with an untargeted, universal proportional transfer to the whole population. The reason becomes apparent when one examines the political affiliation of communities that received PRONASOL spending. Municipalities dominated by the Institutional Revolutionary Party (PRI), the party in power, received significantly higher per capita transfers than those voting for another party.”

The absence of attainable targets with judicious spending being ably supported by PPB also called, outcomes budgeting, instead of routinely following the spending targets will lead to quality failures, dysfunctional services and in fact negative outcomes. Making public services work to improve outcomes is the cardinal principle of governance. At present, governments are at the crossroads of spending-spree budgets and outcomes
targeted budgets. It should be the endeavor of the governments to choose the latter.

THE REMEDY

The recent budget reforms have originated with resource allocation issue [Joyce and Sieg: 2000, 4]. With resource allocation being an ambiguous area of enquiry, the budget reforms have undergone many phases. First, budgeting reforms were introduced to counter corrupt policies between 1980 and 1920 and the key concept was executive budget [Burkhead:1956]. Secondly, attempts to introduce greater efficiency into budgeting by focusing on less cost by ways of organizing for work and of delivering outputs were the major features of budgeting between 1920 and 1960. In this regard, Schick [1966] observe that ‘performance budgeting’ called for better techniques of work measurement thus helping managers to evaluate efficiency of various methods of delivering outputs. Thirdly, the budget reforms have focused on the results obtained from the expenditure of money for government activities rather than on the expenditure or activities themselves. As Schick [1971] and Congressional Budget Office [1993] observe, the most famous of these reforms has been the program and performance budgeting (PPB). Joyce and Sieg [2000:3] opine that PPB also includes the following various concepts used in budget reforms: performance budgeting, performance funding, performance-based budgeting, budgeting for results, performance management, managing for results, connecting resources with results and outcomes budgeting.

THE CONCEPT OF PPB

Since the middle of the twentieth century, the pressure to spend more effectively and develop better budgeting techniques has resulted in an almost universal acceptance that budgeting is not only about planning for inputs, but it is also about planning for the results that governments want to achieve.

The concept of PPB has assumed significance in the recent past, as it constitutes an integral part of the processes of reform in financial administration. This budget radically differs from the traditional line-item budget. The PPB undertakes allocation of expenditure by reference to particular objectives and
functions. In other words, a clear shift from itemized expenditure to functions or activities is discernible in this type of budgeting.

In the words of the Administrative Reforms Commission [1968] of India, performance budget is “a technique for presenting government’s operation in terms of functions, programs, activities and projects.” It presents public expenditure in terms of functions, programs and activities. Thus it clearly differs from the line-item budget, which emphasizes on staff, furniture, equipments, etc.

Young [2003] observes: “PPB is the allocation of funds to achieve programmatic goals and objectives as well as some indication or measurement of work, efficiency, and/or effectiveness”.

Finally, Joyce and Sieg [2005] view PPB as “a continuum that involves the availability and use of performance information at each of the various stages of the budget process – budget preparation, budget approval, budget execution, and audit and evaluation.” This definition is somewhat broader than the first two, emphasizing the importance of information availability and use throughout a very fluid budget process.

COMPONENTS OF PPB

Figure 1 presents an overview of different components of PPB, which consists of function, program, activity, project and objective.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Function</strong></td>
<td>A major division or sector of total efforts of government</td>
<td>Social services</td>
</tr>
<tr>
<td><strong>Program</strong></td>
<td>A composite set of collective efforts and activities designed to accomplish a particular objective</td>
<td>Education</td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td>A collection of homogenous types of work in a program the purpose of which is to contribute to the accomplishment of the objective</td>
<td>Training of school teachers</td>
</tr>
<tr>
<td><strong>Project</strong></td>
<td>An activity of capital nature</td>
<td>Building of a school</td>
</tr>
<tr>
<td><strong>Objective</strong></td>
<td>The goal to which all the activities within a program are directed. The end product of goal related to the basic mission of the agency</td>
<td>Improving education</td>
</tr>
</tbody>
</table>

Source: Dean, 1986
BUDGETING REFORMS IN YEMEN

In tune with the worldwide budget reforms, the Republic of Yeman has also responded positively towards the adoption of PPB. The first popular budget was introduced in 1973-74 based on traditional line-item budget and this budget format was continued till 1999 [Al-Bishari, 1999]. In 2000, the country adopted economic classification of budget as proposed by the International Monetary Fund (IMF) in 1986, which brought out Government Financial Statistics Manual (GFSM) in 2001. In 2002, the Manual was extended to cover the local authorities also. The Yemeni Government intended to adopt the budget reforms in three components in three stages as highlighted in Figure 2. The end objective of these reforms was to introduce Program and Performance Budgeting (PPB) by 2015. The first stage involved functional and economic classifications of assets, liabilities, revenues and expenses of various government sectors on the lines of financial accounting and reporting adopted in private sectors and also imparting training to the officials of the government covering software development and application. It was envisaged that the first stage would be completed between 2002 and 2005. The second stage involves the introduction of chart of accounts, specifying programs and activities and accrual accounting along with the adoption of top-down budgeting and medium term plan. The second stage is expected to be completed between 2006 and 2009. Accordingly, the PPB has been introduced partially in the four largest ministries, which cover about 80.00 percent of the total budget of the Republic of Yemen. These ministries include Ministry of Finance, Ministry of Education, Ministry of Health and Population, and Ministry of Public works and Roads. Besides, connecting these ministries electronically, and communications between the main centers in the Ministry of Finance and the Central Bank of Yemen are now being established. The third stage envisages the adoption of PPB through accounting for assets and liabilities; program based costing; specifying performance indicators; performance management; and coverage of PPB in all ministries. As a sequel to these reforms, three workshops were conducted by the Yemeni Government to impart training to the officials involved in the new budget process in 2005. Nearly 3,500 officials participated in the
workshops and they were given the training in the development of accounting systems, classification of accounts, chart of accounts, accrual accounting, top-down budgeting and accounting information system [MoF: 2007].

**FIGURE 2**
**PROGRAM AND PERFORMANCE BUDGET (PPB) IN YEMEN**

<table>
<thead>
<tr>
<th>Reform Stages</th>
<th>First stage 2002-2005</th>
<th>Second stage 2006-2009</th>
<th>Third stage 2010-2015</th>
<th>Critical Conditions for Adoption of PPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFMIS</td>
<td>Project Preparation (Computers, Software, training)</td>
<td>Pilot Ministries is (MoF, MoH, MoPWH and MoE)</td>
<td>All Ministries</td>
<td>• The Legislative Support</td>
</tr>
</tbody>
</table>

**Note:** GFSM: Government Financial Statistics Manual.; AFMIS: Accounting and Financial Management Information System; MTEF: Medium-term Expenditure Framework; MoF: Ministry of Finance; MoH: Ministry of Health; MoPWH: Ministry of Public Works and Housing; and MoE: Ministry of Education.

Source: Al-Husaini and Gowda [2008:250].

**REVIEW OF LITERATURE**

Program and Performance Budget (PPB) has emerged as a strategic tool for achieving the success of the government programs during 1990s in the developed countries. The review of literature covers more than 300 references covering the conceptual issues and the empirical evidences of PPB. Its relevance to developing countries has been catching on for two reasons: firstly, the governments are spending huge amounts targeted to increase the living standards of the masses. Secondly, the governments will
have to watch the emerging benefits to masses with a focus on cost-benefit analysis. In this direction, much research has flowed down especially from the United States. The research evidences indicate that the introduction of PPB has changed the budget formats from line-item budget to performance-based budgeting to a substantial level. However, the role of PPB in resource allocation seems to be not very substantial and it is writ large with several doubts. Accrual accounting which the fulcrum of PPB, has been widely accepted in developed countries and substantial progress has been made in this direction. It is also important to note that the developing countries have been showing keen interest in PPB and they are very much responsive to account classification and accrual accounting. Much headway has been made in developing and refining the performance measures, especially in developed countries. The developing countries adopting PPB have relied upon the accounting, classifications and accounting systems developed by the International Monetary Fund (IMF). The use of Performance information in decision making by the government authorities has not reached a satisfactory level, but the spirit with which such information by the decision makers is evidenced at a higher level. Lastly, the stumbling blocks for implementing PPB in developing countries seem to be low knowledge level of PPB in administration, and heavy demands for work and positive results from the officials. However, it is important to note that social interest should prevail upon self interest and PPB seems to be the panacea for all ills of mismanagement of government programs attempting to achieve social welfare.

NEED FOR THE STUDY

The practitioner's view of successful performance implementation is likely linked to their view of the purpose of performance implementation. The purpose of this research, then, is fivefold. First, this research extends previous state performance-based budgeting research by focusing on the goals of state performance-based budgeting efforts and perceived success in attaining those goals. Second, the study is designed to gain insights regarding state performance-based budgeting implementation successes and obstacles. Third, the Republic of Yemen is a less developed country having umpteen
number of technical and human resource problems. Fourth, the Republic of Yemen has already implemented the PPB and it is expected to take the complete shape by 2015. Insights regarding goals of implementation and perceptions of implementation success can be useful to governments considering the adoption of performance-based budgeting or to states contemplating the expansion of or modification of their implementation strategies. Fifthly, it is also important to note that an integrated empirical study of relevance of PPB, accounting reforms for PPB and adaptability of PPB has not been made so far. Hence the present study has been taken up.

FOCUS OF THE STUDY

The study mainly focuses on relevance of PPB in the Republic of Yemen. The means through which relevance is to be achieved mainly depends upon development and implementation of accounting system, the latter directing the adaptability level. Hence the present study enquires into relevance, accounting system and adaptability levels. ‘Relevance’ refers to the appropriateness, rationale or the importance of PPB. ‘Accounting system’ refers to the technological input, recording of and processing of inputs and outputs of PPB. ‘Adaptability’ refers to acceptability and practicability from the viewpoint of human and organizational perspectives. Even though, accounting system is central to the PPB concept, it is to be operated by the employees and hence the perceptions of the employees become the base on which relevance, accounting system and adaptability of PPB have to be studied. The PPB is already under way in the Republic of Yemen since 2002. In view of the actual progress in realizing the relevance of PPB and accounting reforms towards PPB level, it becomes imminent to evaluate the actual progress and expected level of progress of PPB. Further, the success or failure of PPB depends purely on the demographic characteristics of the personnel engaged in PPB. Hence the objectives of the study and hypotheses for the study are based on these demographic features covering mainly education, positions held, knowledge, specialization, experience and age.
OBJECTIVES OF THE STUDY

In carrying out the study, the following objectives have been identified with regard to PPB in the Republic of Yemen:

(i) To evaluate the relevance of PPB;
(ii) To identify the constraints in the implementation of PPB;
(iii) To understand the relationship of control, cadre, knowledge and age with the effectiveness of PPB;
(iv) To analyze the perceptual differences on PPB in various groups; and
(v) To offer suggestions to make PPB more effective.

HYPOTHESES FOR THE STUDY

In the background of the objectives of the study, the following hypotheses have been identified:

\[ H_1: \] The program and performance budgeting has higher expectation levels than the present level of achievements;

\[ H_2: \] The progress of PPB implementation is constrained by the slow rate of accounting reforms and by the scope for adaptability;

\[ H_3: \] The obstacles for implementing PPB are more in technical system development and implementation than in human resource input;

\[ H_4: \] The actual level of achieving relevance of PPB is inversely related to control level, cadre level, knowledge level and age level;

\[ H_5: \] The progress of accounting reforms to adopt PPB is inversely related to control level, cadre level, knowledge level and age level;

\[ H_6: \] Adaptability of PPB is negatively related to control level, cadre level, knowledge level and age level;

\[ H_7: \] The expectation level of relevance of PPB is positively related to control level, cadre level, knowledge level and age level;
**H8**: The expectation level of accounting reforms of PPB is positively related to control level, cadre level, knowledge level and age level; and

**H9**: Perceptional differences arise more in accounting reforms and adaptability than in relevance.

### RESEARCH METHODOLOGY

The present study is empirical in nature. The PPB in the Republic of Yemen is evaluated from the viewpoint of relevance, accounting system and adaptability. The study was carried out by relying upon the primary and secondary sources of information. The secondary source of information was extensively used to highlight the conceptual background of PPB and empirical findings on various dimensions of PPB. After identifying the need for the study, objectives of the study and hypotheses for the study, the research plan was carried out. This research plan has been presented under (i) Developing the Questionnaire; (ii) Selection of Sample Respondents; (iii) Use of Statistical Tools; and (iv) Operational Definitions.

(i) Developing the Questionnaire:

After pilot survey, the questionnaire was designed. The questionnaire included four dimensions, viz., bio-data of respondents, relevance of PPB, accounting system for PPB and adaptability of PPB. The bio-data consisted mainly of the demographic features of respondents covering the control level, cadre level, knowledge level of PPB, age level, qualification level and specialized field of knowledge. The relevance of PPB dealt with the actual realization of relevance and expectations and it covered 30 items under 8 components. The accounting system focused on the actual level of progress in implementing the accounting procedures in PPB and also the expectations. The responses on accounting system were elicited on 24 items under 8 components. The adaptability of PPB related to the level of practicability and it consisted of 40 items under 10 components. Further, the responses were elicited on five-point Likert’s scale. Figure 3 presents an overview of the items
and components under relevance of PPB, accounting system for PPB and adaptability of PPB.

**FIGURE 3**

**DIMENSIONS ON RELEVANCE AND ADAPTABILITY OF PPB**

<table>
<thead>
<tr>
<th>Components</th>
<th>St. No**</th>
<th>Components</th>
<th>St. No</th>
<th>Components</th>
<th>St. No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Effective of budget staffs;</td>
<td>4</td>
<td>1. Practice of Accounting Bases;</td>
<td>4</td>
<td>1) Accounting system level;</td>
<td>5</td>
</tr>
<tr>
<td>2) Improvement the deliver service;</td>
<td>4</td>
<td>2. Cost Accounting;</td>
<td>3</td>
<td>2) Performance level;</td>
<td>6</td>
</tr>
<tr>
<td>3) Shifting to management by objectives</td>
<td>4</td>
<td>3. Recognition of Fixed Assets;</td>
<td>3</td>
<td>3) Network information system level;</td>
<td>5</td>
</tr>
<tr>
<td>4) Costing Management;</td>
<td>2</td>
<td>4. Classification of Expenditures;</td>
<td>4</td>
<td>4) Transparency level;</td>
<td>4</td>
</tr>
<tr>
<td>5) Programs and Activities;</td>
<td>4</td>
<td>5. Conduction and Measurement of Data;</td>
<td>3</td>
<td>5) Technical skills level;</td>
<td>3</td>
</tr>
<tr>
<td>6) Usefulness of Information System;</td>
<td>4</td>
<td>6. Coordination to Budget Preparation;</td>
<td>2</td>
<td>6) Personal ability level;</td>
<td>4</td>
</tr>
<tr>
<td>7) Rationalization of Spending; and</td>
<td>5</td>
<td>7. Financial and Administration Decision Making an</td>
<td>3</td>
<td>7) Decentralized level;</td>
<td>2</td>
</tr>
<tr>
<td>8) Control level;</td>
<td>3</td>
<td>8. Type of Entry and Recording.</td>
<td>2</td>
<td>8) Classification level;</td>
<td>4</td>
</tr>
<tr>
<td>9) Political planning level; and</td>
<td></td>
<td></td>
<td></td>
<td>9) Political planning level; and</td>
<td>4</td>
</tr>
<tr>
<td>10) Level of control and Reporting.</td>
<td></td>
<td></td>
<td></td>
<td>10) Level of control and Reporting.</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td></td>
<td>24</td>
<td></td>
<td>40</td>
</tr>
</tbody>
</table>

* components number :- \(8 + 8 + 10 = 26\)
** statements number :- \(30 + 24 + 40 = 94\)

(ii) Selection of Sample Respondents:

The Republic of Yemen is run by a bicameral legislature consisting of a Shura Council and a House of Representatives. There are three levels of administration, viz., the parliament, the governorates and local authorities. The parliament makes the budget allocations to the governorates and local authorities, which execute the programs. Hence the parliament is the supreme authority for budget making. There are several ministries looking
after the different functions of the government including Central Organization for Control and Audit (COCA). From the viewpoint of PPB, the budget staff and auditors form the core personnel. The budget staff engages in the preparation of the budget including compilation of estimates of the plan allocations; guidelines for the execution of programs; monitoring of the programs; and providing feedback information to higher authorities. It is also important that the COCA becomes an important integral part of the PPB in view of work ethics of the officials being given a religious touch under Islam. Hence the respondents were drawn from the different ministries and COCA and these respondents were budget staff and auditors. The responses to the questionnaire were elicited from **all** budget staff in the different ministries and COCA. Hence the empirical study was carried out on the basis of census method. Figure 4 highlights the details of sample respondents and the groupings of them. There were 231 budget staff working in various ministries and departments of the Republic of Yemen and there were 198 auditors in different ministries and departments and COCA. Hence the total number of respondents stood at 429. In the process of eliciting responses to the questionnaire, it was evidenced that 78 respondents could not be reached due to various reasons. Hence the total number of respondents to whom the questionnaires were served stood at 351, which consisted of 191 respondents and 160 respondents from budget staff and auditors respectively. The response was received from 262 officials comprising of 138 budget staff and 124 auditors and the response rate was 74.64. In order to analyze the perceptual differences that existed in different identified groups in these 262 respondents, the respondents were classified on the basis of education level, designation, specialization, knowledge level and age. While collating the data, there were heavy concentrations in the number of respondents under education and specialization in the sense that the majority of them were graduates representing 95.80 per cent and accountants representing 85.88 per cent of the respondents and these two variables were not included in the study. As a result, the analysis of perceptual differences was restricted to designation, knowledge level and age including the control factor, which consisted of budget staff and auditors.
## Selection of Sample Respondents

<table>
<thead>
<tr>
<th>Items</th>
<th>Budget Staff (Nos.)</th>
<th>Auditors (Nos.)</th>
<th>Total (Nos.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) No. of officials</td>
<td>231</td>
<td>198</td>
<td>429</td>
</tr>
<tr>
<td>(B) Out of reach</td>
<td>40</td>
<td>38</td>
<td>78</td>
</tr>
<tr>
<td>(C) No. of respondents contacted (A-B)</td>
<td>191</td>
<td>160</td>
<td>351</td>
</tr>
<tr>
<td>(D) No. of questionnaires returned with response</td>
<td>138</td>
<td>124</td>
<td>262</td>
</tr>
<tr>
<td>(E) Response rate (D / C)</td>
<td>72.25</td>
<td>77.50</td>
<td>74.64</td>
</tr>
<tr>
<td>(F) Patterns of distribution of respondents</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Education Level

<table>
<thead>
<tr>
<th></th>
<th>Post-graduation</th>
<th>Nil</th>
<th>1</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduation</td>
<td>131</td>
<td>120</td>
<td>251</td>
<td></td>
</tr>
<tr>
<td>Secondary education</td>
<td>7</td>
<td>3</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138</strong></td>
<td><strong>124</strong></td>
<td><strong>262</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Designation

<table>
<thead>
<tr>
<th></th>
<th>Officers</th>
<th>47</th>
<th>55</th>
<th>102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caseworkers</td>
<td>91</td>
<td>69</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138</strong></td>
<td><strong>124</strong></td>
<td><strong>262</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Specialization

<table>
<thead>
<tr>
<th></th>
<th>Management</th>
<th>12</th>
<th>4</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>111</td>
<td>114</td>
<td>225</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>8</td>
<td>3</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>7</td>
<td>3</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138</strong></td>
<td><strong>124</strong></td>
<td><strong>262</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Knowledge Level

<table>
<thead>
<tr>
<th></th>
<th>Amateurs</th>
<th>117</th>
<th>101</th>
<th>218</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced</td>
<td>21</td>
<td>23</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138</strong></td>
<td><strong>124</strong></td>
<td><strong>262</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Age

<table>
<thead>
<tr>
<th></th>
<th>Youth</th>
<th>86</th>
<th>87</th>
<th>173</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior</td>
<td>52</td>
<td>37</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138</strong></td>
<td><strong>124</strong></td>
<td><strong>262</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey.

### Use of Statistical Tools:

The measurement of perceptions of respondents towards relevance, accounting system and adaptability of PPB is essentially based on weighted mean value and standard deviation. To analyze the actual level of achievement and expectation in relevance of PPB and accounting system for PPB, Wilcoxon test was used. Mann-Whitney test was used to analyze the perceptual differences in different groups of respondents. The t-test was applied to analyze the adaptability of PPB. The collating of the data and the determination of statistical values was done through Statistical Package for Social Sciences (SPSS).
(iv) Operational Definitions:
In carrying out the study, the following definitions were identified or used for different groups of respondents from the viewpoint of (i) Control Level; (ii) Cadre Level; (iii) Knowledge Level; and (iv) Age Level and these are explained below.

(i) Control Level:
The control level refers to the level of scrutiny of revenue realized and expenses incurred. It was found that the control level was higher in auditor group than in budget staff. Through the questionnaire, it was possible to elicit the response towards the group to which each respondent belonged. Accordingly, the data on perceptions were collated.

(ii) Cadre Level:
The cadre level refers to the rank in which the respondents worked in different offices. Basically, caseworkers and officers were the groups. Through the questionnaire, it was possible to elicit the response towards the group to which each respondent belonged. Accordingly, the data on perceptions were collated.

(iii) PPB Knowledge Level:
The respondents were asked to the category to which they belonged from the viewpoint of PPB knowledge level. Four levels of knowledge were identified: advanced knowledge; moderate knowledge; low knowledge and weak knowledge. Accordingly, the data was collated by grouping the respondents having advanced knowledge and moderate knowledge as experienced and respondents having low knowledge and weak knowledge as amateurs.

(iv) Age Level:
Based on age, the respondents were categorized into youth and senior. Those respondents aged below 35 years were categorized as youth and those respondents aged 35 years and above were categorized as seniors.
MAJOR FINDINGS OF THE STUDY

The major findings of the study have been presented under: (i) Relevance of PPB; (ii) Accounting System and PPB; (iii) Adaptability of PPB; and (iv) Perceptual Differences.

(i) Relevance of PPB:

The following were the major findings on the relevance of PPB:

1. The actual level of relevance achieved was rated with the mean value of only 2.40 representing the achievement percentage of 48.00 and the expectation of achievement was rated with the mean value of 3.69 resulting in additional expected achievement of 53.75 per cent over the actual level.

2. The highest level of achievement on relevance was in effectiveness of control with the assigned mean value of only 2.54 representing an achievement rate of 50.80 per cent and this was followed by moderate achievements in usefulness of information system, rationalization of spending, managerial orientation of budget execution, improvement in service delivery and work impact on budget staff with the actual mean values standing at 2.50, 2.47, 2.43, 2.41 and 2.38 respectively and the least achievements were evidenced in cost management and administering programs and activities with their respective mean value of 2.12 and 2.33.

3. The potential for achieving relevance was found to be the highest in administering programs and activities with the expected mean value of 3.77 which was followed by cost management, managerial orientation of budget execution, work impact on budget staff with their respective mean values of 3.75, 3.74 and 3.72.

4. The least potential for achieving relevance was found with regard to effectiveness of control, improvement in service delivery, rationalization of spending and usefulness of information system with their respective expected mean values of 3.60, 3.61, 3.65 and 3.69.

5. The highest expectation on relevance of PPB was found in ‘emphasis on management by objectives’ with the assigned mean value of 4.01 representing the prospective achievement level of 80.02 per cent.
(6) This lower realization in activity based costing was followed by improvement in service delivery, improved information system, shifting from spending to decision making, effective cost management and emphasis on management by objectives with their rankings of 27, 26, 25, 24 and 23 respectively.

(7) From the viewpoint of expected level of PPB relevance, it was evidenced that the respondents perceived the highest priority towards emphasis on management by objectives by assigning the first rank which was followed by effective cost management and increased focus on activities in each program by assigning the 2\textsuperscript{nd} and 3\textsuperscript{rd} ranks respectively.

(8) The respondents perceived the least rank towards improvement in performance level and this was followed by shift in emphasis from money budgeting to input output budgeting, increased usefulness of feedback information to higher authority and effective internal control system with their respective rankings of 26, 25, and 24.

(ii) Accounting System and PPB:

The following were the major findings on the accounting system and PPB:

(1) The actual progress in accounting reforms was assigned with the mean value of only 2.37 representing the reform level of only 47.40 per cent.

(2) The expected level of accounting reforms was assigned with the mean value of 3.39 representing an achievement potential of 67.80 per cent only and there was an additional achievement potential of the mean value of 1.02 representing 43.04 per cent over the actual level.

(3) The least progress was evidenced in ‘recognition of fixed assets’ with the mean value of 2.07 and this was followed by ‘implementing cost accounting reforms’ with the mean value standing at 2.13.

(4) It was evidenced that the practice of cash basis of accounting still continue even after having introduced PPB to a substantial level and the actual mean value stood at 2.82.

(5) Even though, accrual accounting system is the hallmark of PPB, its practice was assigned the least mean value of 2.05 indicating that the cash basis of accounting was the dominating feature.
(6) The classification of expenditures was found to be slowly progressing with the mean value of 2.54 only.

(7) The budget categorizing on the basis of programs and activities was not satisfactory in the sense that the actual implementation level stood at the mean value of 2.19.

(8) The availability of performance measures was also evidenced to be practiced at a low level with the mean value of only 2.11.

(9) The adoption of single entry still dominated the recording process with the actual mean value of 3.13 and the respondents felt the need for the arrest of this single entry by assigning the expected mean value of 2.25.

(10) The expectation towards double entry was accorded the higher level of mean value of 3.62 with the additional efforts to be made to the extent of the mean value of 1.07 representing an improvement of 41.96 per cent.

(11) It was interesting to note that the practice of cash basis of accounting system was extensively adopted amidst the presence of PPB in Yemen and this item was assigned the first rank.

(12) This feature of cash basis of accounting was found to be further strengthened with the large scale prevalence of single entry system which was assigned the second rank.

(13) It was also found that the Republic of Yemen had a moderate level of success in economic classification of the budget system with the 3rd rank assigned to it. However, it was anomalous to observe that there was a practice of recording on commitment basis and the assigned rank was 4.

(14) The respondents severely underrated the practice of cash basis of accounting and single entry. Their actual levels of presence were 3.82 and 3.13 and the respondents assigned lower roles to these two practices with the mean values of 2.49 and 2.25.

(iii) Adaptability of PPB:

The following are the findings on the adaptability of PPB and they include expected level of adaptability with rankings of items and components.

(1) Considering all the 10 components of adaptability with 40 items included in the study, it was disappointing to note that the adaptability level was assigned the mean value of only 1.42 indicating the possibility of
enforcing PPB at 28.40 per cent. The reason for this low adaptability might be attributed to lower progress in accounting reforms, because the adaptability of accounting system was rated with the least mean value of only 0.79 representing the scope for adopting 15.80 per cent only.

(2) It was interesting to note that the organizational dynamics was rated with the highest level of adaptability out of ten components and the mean value stood at 2.74.

(3) The respondents assigned a positive role for top level political coordination by assigning a moderate mean value of 1.69, which was above the adopting of accounting system level having the actual mean value of 0.79.

(4) The adoption of performance measures was also rated with the lower mean value of 1.04 only representing the scope for adaptability at 20.80 per cent and this was followed by PPB budget making with the adaptability level of 1.22 only.

(5) From the viewpoint of technical skills, the adaptability rate was assigned the mean value of 1.47 indicating the percentage adaptability of 29.40 per cent only.

(6) The respondents perceived a moderate level of the ability of the government to bear the cost of PPB reforms with the mean value of 2.11 having the 1st rank.

(7) The ability of the government to bear the cost of PPB was followed by the improvement in work culture of employees, level of computerization and internal control system with their respective mean values of 2.09, 1.97 and 1.90 with the ranks of 2nd, 3rd and 4th respectively.

(8) The costing system reforms to implement PPB were rated with the lowest adaptability at the mean value of only 0.53 with the ranking of 33, which was followed by the adoption of accrual accounting system, performance evaluation and double entry system with their respective mean values of 0.57, 0.66 and 0.79 having the ranks of 32, 31 and 30 respectively.

(9) The adaptability of PPB was more constrained by the level of technical system than by human resource input and the respective mean values stood at 1.27 and 1.57.
(iv) Perceptual Differences:

The perceptual differences from the viewpoint of different groups of respondents (budget staff vs. auditors, caseworkers vs. officers, amateurs vs. experienced and senior vs. youth) have been presented under (a) Relevance of PPB; (b) Accounting System; and (c) Adaptability of PPB.

(a) Relevance of PPB:

The following were the major findings on relevance of PPB:

1. The perceptual differences were very much scattered across different groups with regard to thirty items of relevance at the actual level, but larger number of differences were evidenced in the group of amateurs vs. experienced with the number standing at 19, which was followed by differences in caseworkers vs. officers, budget staff vs. auditors and senior vs. youth with the respective numbers of 12, 11 and 7.

2. There were no perceptual differences on the expectations with regard to relevance of PPB components in the groups of budget staff vs. auditors, case workers vs. officers and seniors vs. youth.

(b) Accounting System:

The following were the perceptual differences on accounting system:

1. The perceptual differences were evidenced in all categories of respondents with regard to relevance of cost accounting, recognition of fixed assets and measurement of performance.

2. The perceptual differences between senior and youth were evidenced in 7 components excepting the practice of accounting bases.

3. The perceptual differences existed across 7 components of accounting system in amateurs vs. experienced and the difference was not evidenced in case of coordination in budget preparation.

4. With regard to actual progress of accounting reforms consisting of 24 items, perceptual differences were evidenced in all groups of respondents with regard to practice of accrual accounting system, activity based costing, costing of fixed assets, recording of depreciation for each fixed assets, economic classification, budget categorizing on the basis of programs
and activities, recording of monthly progress of programs, activities and projects, information system to evaluate the performance of programs, activities and projects at the year end and decentralized decision making.

(5) More number of perceptional differences were evidenced in the groups of amateurs and experienced from the viewpoint of 24 items included under accounting system and the number stood at 22 which was followed by the perceptional differences in the groups of senior vs. youth, caseworkers vs. officers and budget staff vs. auditor with the respective number of differences of 16, 15 and 13.

(6) In tune with perceptional differences in actual levels of accounting reforms towards PPB, the perceptional differences were evidenced across all components of accounting systems in case of amateurs vs. experienced.

(c) Adaptability of PPB:

The following were the perceptional differences on adaptability of PPB:

(1) Considering the 10 components of adaptability of PPB, perceptional differences existed in all the four groups and the components were network information system, transparency and coordination, need for technical skills and PPB budget making.

(2) The overall adaptability of PPB had perceptional differences in the groups of budget staff vs. auditors, amateurs vs. experienced, senior vs. youth and no differences in perceptions were evidenced in case of caseworkers and officers.

(3) The perceptional differences between senior vs. youth were evidenced in all the 10 components of adaptability of PPB.

(4) The components were found to have no exceptions to the perceptional differences.

TESTING OF HYPOTHESES

In the background of the findings of the study, the hypotheses formulated have been tested below:

\( H_1 \): The expectation level of relevance of PPB and accounting reforms towards PPB stand at the mean values of 3.69 and 3.39 with their respective actual achievement levels of 2.40 and 2.37. Hence the
hypothesis that “the program and performance budgeting has higher expectation levels than the present level of achievements” stands

**ACCEPTED**

**H$_2$:** The relevance of PPB is realized at a moderate level with the mean value of 2.40 and the accounting reforms towards PPB has a moderate value of only 2.37 and the slow progress in accounting reforms has resulted in lower adaptability level of PPB with the mean value of only 1.42. Hence the hypothesis that “the progress of PPB implementation is constrained by the slow rate of accounting reforms and by the scope for adaptability” stands

**ACCEPTED**

**H$_3$:** The achievement level of PPB implementation having technical system and human resource input as the basic ingredients of PPB are rated with the actual mean values of 1.27 and 1.57 indicating that human resource input is comparatively better than the installation of the technical system to achieve the objectives of PPB. Hence the hypothesis that “the obstacles for implementing PPB are more in technical system development and implementation than in human resource input” stands

**ACCEPTED**

**H$_4$:** The actual level of relevance of PPB has been perceived to be higher by budget staff, caseworkers, amateurs and youth with their respective mean values of 2.44, 2.39, 2.47 and 2.36 than by auditors, officers, experienced and senior representing the mean values of 2.35, 2.17, 2.06 and 2.20. Hence the hypothesis that “the actual level of achieving relevance of PPB is inversely related to control level, cadre level, knowledge level and age level” stands

**ACCEPTED**

**H$_5$:** The actual level of accounting reforms towards PPB has been perceived to be higher by budget staff, caseworkers and amateurs with their respective mean values of 2.48, 2.47, 2.46 excepting youth with the mean value of 2.16 than by auditors, officers and experienced representing the mean values of 2.25, 2.22 and 1.96 respectively excepting senior with the mean value of 2.48. Hence the
hypothesis that “the progress of accounting reforms to adopt PPB is inversely related to control level, cadre level, knowledge level and age level” stands

**ACCEPTED**

**H₆:** The adaptability of PPB has been perceived to be higher by budget staff, caseworkers and amateurs with their respective mean values of 1.47, 1.45, 1.45 and 1.45 than by auditors, officers, experienced and senior representing the mean values of 1.29, 1.25, 1.23 and 1.38 respectively. Hence the hypothesis that “adaptability of PPB is inversely related to control level, cadre level, knowledge level and age level” stands

**ACCEPTED**

**H₇:** Regarding the expectation level of relevance of PPB, it was evidenced that the groups of auditors and experienced had higher expectation with their respective mean values of 3.76 and 4.09 than the budget staff and amateurs with the respective mean values of 3.66 and 3.63. From the view point of age, there was no difference in perception in expectation and the mean value stood the same for both senior and youth 3.57. However, from the viewpoint of cadre level, the caseworkers perceived a higher level of expectation on relevance of PPB with the mean value of 3.63 than the officers with the mean value of 3.47. Hence the hypothesis that “the expectation level of relevance of PPB is positively related to control level, cadre level, knowledge level and age level” stands

**REJECTED**

**H₈:** Looking at the control level, the auditors having the higher control were found to have more expectation on accounting reforms with the mean value of 3.45 than the budget staff with the mean value of 3.34. Based on cadre level, the officers perceived a higher expectation from accounting reforms with the mean value of 3.44 than the caseworkers with the mean value of 3.36. Regarding the experience level, the experienced assigned a higher mean value of 3.70 than amateurs having assigned the mean value of 3.33. Lastly, the senior personnel assigned a slightly higher mean value of 3.40 to the expectations from accounting reforms than the youth
having assigned the lower mean value of 3.39. Hence the hypothesis that “the expectation level of accounting reforms of PPB is positively related to control level, cadre level, knowledge level and age level” stands

**ACCEPTED**

**H₉:** Considering the perceptual differences of all the four groups included in the study, relevance of PPB had differences in 9 differences from the viewpoint of components and 49 differences from the viewpoint of items. Taking accounting reforms towards PPB, there were 22 differences in components and 66 differences in items. Lastly, there were 27 differences in components and 92 differences in items on adaptability of PPB. Hence the hypothesis that “perceptual differences arise more in accounting reforms and adaptability than in relevance” stands

**ACCEPTED**

**LIMITATIONS OF THE STUDY**

The study was carried out with the following limitations:

(i) Majority of the respondents were not conversant with English language and hence the translation of questionnaire from English to Arabic language while eliciting the responses might have hindered the communication process resulting in wrong interpretation of the statements;

(ii) The perceptions of the respondents from the viewpoint of gender status could not be carried out in view of women officials not found in the government offices, especially in ministries, departments and COCA;

(iii) The perceptions of the respondents from the viewpoint of income status was virtually implied in the cadre level itself and hence it was not included as an independent variable in the study;

(iv) In view of majority of the respondents being graduates having accounting as their specialization, the possible perceptual differences from these two categories could not be carried out; and

(v) The study focused on the perceptions of budget staff and auditors in the ministries, departments and COCA
only and hence the study was not conducted on the perceptions of officials at the levels of governorates and local authorities.

SUGGESTIONS

In the background of the findings, the following suggestions have been made to make PPB more effective in the Republic of Yemen:

(i) Accounting reforms should be intensified by focusing on developing the system essentially based on accrual accounting;

(ii) In view of cost accounting occupying the center stage in applying the performance measures, a scientific system should be designed and implemented so that adaptability of PPB becomes easier;

(iii) Efforts should be made to make the officials engaged in PPB more knowledge oriented and they should be given special training in this regard in the country itself or deputing them for training in the countries where PPB implementation is at a very high level, especially to the United States, Malaysia or Singapore; and

(iv) The present practice of PPB at the central level should be petered down to the levels of governorates and local authorities.

SCOPE FOR FURTHER RESEARCH

An evaluation of PPB in the Republic of Yemen has immense scope and the lines of further research have been outlined below:

(i) An evaluation of classification of accounts is the foundation through which the PPB becomes highly adaptable and hence further research is required in this area;

(ii) Development of a model of activity based costing is another potential area of research;

(iii) The extent of practice of cash accounting vis-à-vis accrual accounting and the reluctance of Yemeni officials has high potentials for research leading to search for effective adoption strategies;
(iv) The reasons for ambiguous differences in control level, cadre level, experience level and age level with regard to expectations on relevance of PPB is also an area of further research; and

(v) A cost-benefit analysis of PPB is very much required in the Republic of Yemen in view of abject poverty prevailing in different sections of the society on one hand and huge amounts of budgetary allocations to eradicate poverty on the other.

CHAPTERIZATION SCHEME

The following is the chapterization scheme of the study.

<table>
<thead>
<tr>
<th>Chapter No.</th>
<th>Title of the Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Introduction</td>
</tr>
<tr>
<td>II</td>
<td>Government Budgeting: Theoretical Issues</td>
</tr>
<tr>
<td>III</td>
<td>Review of Literature</td>
</tr>
<tr>
<td>IV</td>
<td>Analysis and Interpretation of Data</td>
</tr>
<tr>
<td>V</td>
<td>Summary of Findings, Conclusions and Suggestions</td>
</tr>
<tr>
<td></td>
<td>Appendix A: Questionnaire</td>
</tr>
<tr>
<td></td>
<td>Appendix B: Frequency Distribution Tables and Statistical Values</td>
</tr>
<tr>
<td></td>
<td>Bibliography</td>
</tr>
</tbody>
</table>

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REFERENCES


