Abstract: The present study examines problems and difficulties of implementing operational budgeting system and has considered the budget system of the Municipality of Qom. It is tried to study the most important indicators related to the difficulties of implementing operational budgeting system. Also, fruitful strategies will be presented in this respect. These obstacles have been carried out thanks to the literature study and viewpoint of experts and specialists in the field of budgeting has been put forward entitled "Management Factors". The factors have been classified into three main factors including environmental, technical and process and human factors and have been assessed and evaluated by 14 indicators. The methodology of the research is of survey type and required data were collected through the distribution of questionnaires between two groups of experts and university professors and also managers and experts related to the budgeting affairs in order to test hypotheses of the research. The collected data were developed and analyzed using SPSS, Excel, Expert and Choice software packages. The results of this research show that obstacles and problems of establishing and implementing operational budgeting system in the Municipality of Qom are due to the management factors. As a matter of fact, difficulties of establishing operational budgeting in view of respondents of each two subjects of the study include human, technical and process and environmental factors respectively which are related to the management factors. Thus, it is proposed to identify these obstacles and solve them in line with implementation of operational budgeting system. [Sara Fatahi, Mozhgan Moharrami, Ajdar Akson, Studying Obstacles and Challenges of Establishing Operational Budgeting System in the Municipality of Qom and Solutions Proposed to Solve Them. J Am Sci 2013;9(2):238-246]. (ISSN: 1545-1003). http://www.jofamericanscience.org.

Keywords: Municipality, Obstacles and Difficulties, Operational Budgeting

Introduction

Operational budgeting is a type of planning, budgeting and assessing system which emphasizes on the relationship of spent cost and expected results. Various administrative departments are accountable based on certain standards entitled "Performance Indicators" within the framework of the operational budgeting and managers have more power to determine the best method in line with attaining the results. On the other hand, participation of policymakers, managers and even citizens are carried out within the framework of strategic programs, cost-oriented priorities and performance assessment. Identification of relationship between strategic planning and allocation of resources due to the long-term horizons are of the other objectives of operational budgeting. With the studies made in this regard, if policymakers could array financial decisions objectively and based on efficiency and efficacy, so, both policymakers and people can adopt a clear-cut and vivid judgment on the society. As a matter of fact, operational budgeting, with connecting budget and functional decisions, can improve accountability to legislators and people. In general, operational budgeting is after answering the following questions:

Where we stand today? Where do you want to be? How do we attain these objectives? How should we measure our progress?

Operational budgeting has long been considered among the amendment proposed by developing and developed countries. In Iran, the idea of operating budget was first put forward in the recent years in Paragraph "B" of Note 23 of 2002 Budget Act of the country. According to this paragraph, it is read: "The Management and Planning Organization (MPO) of the country had been entitled to take effective steps on operating budget, improving incomes and costs estimation system for 2003 for all executive departments, companies and organizations which are liable to observe general rules and regulations in line with amending and correcting budget reform program. Moreover, MPO was entitled to distribute credits, related to the costs, based on the demands of departments and activities of the organizations."

This subject was reiterated and repeated in Paragraph "R" of Note "1" of 2003 Budget Act and Paragraph "Z" of Note "1" of 2004 Budget Act as...
well. However, definition and implementation of operational budgeting has been followed up with frequent ambiguities. In this study, it is tried to study obstacles and difficulties of implementing operational budgeting in the Municipality of Qom as one of the executive organizations which has been tasked with solving problems facing citizens of this province. In the same direction, solutions have been presented to solve problems and facilitate implementation of operational budgeting in this organization and other organizations and similar organizations.

Importance and Necessity of the Research

Administering a business unit in today’s dynamic economic conditions is a very complex and difficult task. Professional managers plan each stage of operation of their unit carefully and assure accurate and on-time implementation of activities through imposing control methods. Budgeting is considered as main pillar of planning process and controlling management. Proper budgeting system will bring about periodical planning, improvement of coordination and relationship and provides an appropriate framework to control and measure and evaluate performance of personnel. Generally speaking, proper budgeting system guides activities of the unit in line with materializing objectives of the organization.

Now, the necessity and significance of doing this research will be explained briefly as follows:

1- Available information envisioned in annual budget documents is ambiguous and do not have transparency.
2- In the proposal stage, available information is followed with overestimation of revenues while they are followed with lack of materialization of some revenues in the implementation process.
3- The government costs are not estimated based on briefing reports and actual requirements of the executive organizations and clear-cut estimation basics are not recommended.
4- Executive system of the country is complex and lacks favorable efficacy. The operational budgeting system is after establishing bond between functional indicators and allocation of resources.

The idea beyond operational budgeting is as follows: policymakers should stabilize financial decisions objectively and based on effectiveness and efficiency. Also, policymakers should identify programs’ required financial resources in order to attain criteria of measurement and control results in comparison with the program, so that both policymakers and people can judge better on the performance.

As a matter of fact, operational budgeting, with connecting budget and functional decisions, can improve accountability with regard to legislators and people as well. Generally speaking, discipline will be replaced with chaos, public interests will be replaced personal interests and comprehensive programs will be replaced personal taste. (Fatemeh Mahmoudi, Studying Obstacles of Implementing Operational Budgeting in Meteorological Organization and Presenting Appropriate Strategy, 2006) With due observance to the abovementioned subjects, paying due attention to the obstacles of implementing operational budgeting in the executive departments is of paramount importance. In this study, effective steps will be taken into consideration in order to solve the problem. The budget of the Municipality of Qom, which have been provided by the managers and deputies and approved by the Islamic City Council, has been studied briefly and it has been tried to study the most important indicators which are related to the difficulties of implementing operational budgeting. Moreover, fruitful strategies will be presented in order to alleviate obstacles. So, the main questions in this research are proposed as follows:

- What are the difficulties and problems of implementing operational budgeting in the Municipality of Qom?
- Which one of the management factors affect implementation of operational budgeting?

Also, this study intends to prove impact of each of environmental, human and technical and process factors and also answer the following question: absence of which factor will result in effective implementation of operational budgeting in the Municipality of Qom?

In other words, what are the necessary strategies to remove the obstacle?

Main Objectives of the Research

Main Objective

- To determine impact of management factors on the obstacles and difficulties of implementing operational budgeting in the Municipality of Qom and presenting necessary strategies to solve obstacles

Secondary Objectives

- To determine impact of environmental factors on the obstacles and difficulties of implementing operational budgeting in the Municipality of Qom,
- To determine effect of technical and process factors on the obstacles and difficulties of implementing operational budgeting in the Municipality of Qom,
To determine effect of human factors on the obstacles and difficulties of implementing operational budgeting in the Municipality of Qom,

Prioritizing each of the identified factors and its impact in implementing operational budgeting

Terminology and Model of Research

Operational Budgeting

The operational budgeting includes annual program along with annual budget which shows relationship between rate of fund allocated to each program and results of the program. (Ali Panahi, 2006 Budget Act of the country, 2005)

Difficulties of Implementing Operational Budgeting:

There are factors or reasons which will cause lack of correct implementation of operational budgeting.

Environmental Factors:

Environmental factors are defined to the factors such as political factors, government's support of budget upon creating legal requirements of accountability of organizations in the society. Due to the diversity of the political conditions and lack of governmental supports from budget as well as lack of accountability of organizations in the society will cause lack of accurate implementation of operational budgeting.

-Political Factors:

Political factors are defined to the factors including effective specific conditions and features on each type of political system, coordination and approval of the legislation branch with the executive branch. (Joyce Mercer, Operational Budgeting for the Federal Agencies, 2002)

Operational Auditing

The operational auditing is defined to the disciplined and purposeful process of efficiency and efficacy evaluation and economical use of operations of the organization and reporting results of evaluations along with the scientific suggestions to the concerned entities to improve operation. (Reza Shabahang, Management Accounting, 2001)

-Government Support of Budget with Creating Legal Requirements in Budget

Evermore simplification of legal procedures and omission of bureaucratic cumbersome rules and regulations.

-Accountability of Organizations in the Society

Necessity of organization to be held accountable in order to present logical and wise reasons on the activities performed in this regard. (Ja'far Babajani, Evaluation of Responsibility of Accountability of Governmental Auditing and Reporting System, 1999)

-Technical and Process Factor

Technical and process factor refers to the factors including strategic planning, determination of indicators in budget, validity of indicator in budgeting, management information system, suitable change of auditing and reporting system. Lack of the abovementioned factors will cause lack of accurate implementation of the operational budgeting.

-Strategic Planning

Strategic planning is a process in line with equipping human resources and consolidating their efforts to attain long-term objectives and missions due to the internal and external limitations and facilities, (Young, Operational Budgeting System, 2003)

-Determination of Indicator in Budget

Determination of indicator in the budget is a complex of standards, strategies or scales, so that performance is defined by them clearly and satisfactorily.

-Validity of Indicator in Budget

Validity of indicator in the budget is the indicator which measures concept or structure and is a trusted scale for what will be measured. (Panahi, Operational Budgeting in the Theory and Practice, 2007)

-Consistent Change of Auditing and Reporting System

Use of auditing system based on final cost and applying registration of commitment-based auditing in order to set actual costs of program and activities

-Management Data System

Management data system is a complex of software and hardware packages, instruction and human resources which is created in order to support information from decision makers of mid- and higher levels of the organization. (Gholam-Reza Azizi, Governmental Budget Formulation based on GFS, 2003)

-Human Factor

In this study, human factor refers to the factors such as education, prequalification of jobs, encouraging
and punishing system, salary and fringe benefits system.

**Education:** Education is the number of training hours of each person in a year.

- **Prequalification of jobs**
  
  Determination of specifications, features, experiences and the skills that job applicant should meet the job criteria.

- **Reward and Punishment System**
  
  Encouraging and punishing system is the most important tools, so that managers can improve motivation among personnel in order to materialize most objectives of the organization. (Alvani, Memarzadeh, Organizational Behavior, 2001)

- **Appropriate Fringe Benefits and Salary System**
  
  Consistency of salary and fringe benefits depends on the cost of living and type of work volume and inconsistency of the duo will cause dissatisfaction. (Esfandiar Sa'adat, Management of Human Resources, 2001)

**Methodology of Research**

The present study is of survey type in terms of method and is of applied type in terms of objective. (Bazargan and et al. Methodology of Research in Behavioral Sciences, 1998)

**Subject of Study**

All managers, deputies and experts, working in the budgeting department of the Municipality of Qom and affiliated organizations, are considered as subject of the study. Since all staff, personnel, experts and managers of the Municipality of Qom constitute subject of this study, limited subject has not been considered in this study. The number of subject of this study, including staff, personnel, experts and managers working in the Municipality of Qom, stands at 150 persons. In a 30-paired pretest sample, sample variance ($S^2$) equaled to 0.17 percent. With measuring error (0.1 percent), sample size required for the present study has been calculated according to the following relation:

$$n = \frac{NZ^2 \sigma^2}{\varepsilon^2 (N - 1) + Z \sigma^2} = \frac{150 * (1.96)^2 * 0.17}{(0.1)^2 (150 - 1) + (1.96)^2 * 0.17} \approx 46$$

It is observed that according to the above relation, the least sample size was obtained 46, so that a number of 50 questionnaires were collected and distributed for more confidence. (www.qom.ir)

To increase validity and reliability of the questionnaire, a number of questionnaires were first distributed among staff and personnel of the organization and all ambiguities of staff and personnel with regard to the mentioned questions were specified.

Thus, a number of questions were omitted and were replaced with other questions. Finally, final questionnaire was prepared and distributed among subject of the study after crystallization and removal of ambiguities.

In this study, the following tools were used in order to increase conceptual validity of the questionnaire:

1. Taking advantage of constructive viewpoints of experts and senior officials in the field of budgeting affairs,
2. Studying similar questionnaires, articles, books and magazines,
3. Elementary distribution of questionnaire among a number of personnel and imposing their corrective comments and viewpoints.

**Measurement of Reliability**

Reliability is one of the technical specifications of measurement tool. Reliability is defined as follows: to what extent the measurement tool in equal conditions gives us the identical results. The reliability coefficient ranges from zero (lack of relationship) to +1 (full relationship). To evaluate reliability of questionnaire, an initial sample, including 30 elementary questionnaires, was distributed and then, confidence coefficient was calculated by Cronbach's Alpha using data obtained from these questionnaires and with the help of SPSS software package. The reliability of the study was obtained 84% (above 0.7 percent). This figure shows that the used questionnaire has necessary reliability.

**Questions and Hypotheses of Research**

**Main Question:**

"To what extent management factors affect in implementation of operational budgeting in the Municipality of Qom?"

**Secondary Questions:**

- "To what extent environmental factors affect in the implementation of operational budgeting in the Municipality of Qom?"
- "To what extent technical and process factors affect in the implementation of operational budgeting in the Municipality of Qom?"
- "To what extent human factors affect in the implementation of operational budgeting in the Municipality of Qom?"

**Main Hypothesis:**

Management factors are of the main obstacles and difficulties in implementation of operational budgeting system in the Municipality of Qom.

**Secondary Hypotheses:**

- Environmental factors are of the most important obstacles and difficulties in
implementation of operational budgeting system in the Municipality of Qom.
- Technical and process factors are of the most important obstacles and difficulties in implementation of operational budgeting system in the Municipality of Qom.
- Human factors are of the most important obstacles and difficulties in implementation of operational budgeting system in the Municipality of Qom.

**Data Analysis**

Data analysis was performed using two methods. At the first stage, extraction of data through distributed questionnaire related to the managers and experts selected sample, relevant to the budgeting, was performed by SPSS software package using “Binominal Test” and “Mean Test”. Usually, in designing hypotheses of this test, H0 indicates lack of effect of factors and H1 represents effect of factors. At the next stage, data was collected from the certain questionnaires distributed among experts and managers which had been performed using AHP (Analytical Hierarchy Process) method and Expert Choice software package.

It should be noted that hypotheses test is merely related for 1 and 2 secondary hypotheses. Since indexes of third hypothesis were based on “quantitative”, effective steps will be taken to extract data from personnel files of individuals and inquiring from relevant units using comparative checklist and finally, extracted data will be described. (Gholam-Reza Khaki, Methodology Approach to Writing Dissertation, 2005)

**1st and 2nd Sub-Hypotheses Test**

A number of 10 questions related to 10 indexes have been mentioned for testing these hypotheses. For these factors, answers from 1 to 9 were proposed, so that numbers 1 and 9 explain minimum and maximum effect respectively.

**Null Hypothesis**

Obstacles and problems of implementing operational budgeting system in the Municipality of Qom are not related to the environmental factors (Secondary hypothesis number 1) and technical and process factors (secondary hypothesis number 2) (contradictory claim)

**Opposite Hypothesis**

Obstacles and problems of implementing operational budgeting system in the Municipality of Qom are related to the environmental factors (secondary hypothesis number 1) and technical and process factors (secondary hypothesis number 2) (claim) . Binominal test is used to test ratio of frequencies. If more than 50% of managers and experts related to the budgeting affairs in the Municipality of Qom and affiliated organizations believe that obstacles and problems of establishing and implementing operational budgeting in the Municipality of Qom is related to the environmental, technical and process factors, the null hypothesis is rejected and the opposite hypothesis is confirmed.

According to the results of binominal test, it can be said that since the probability value is less than 0.05 percent for each two hypotheses, the null hypothesis is rejected based on equality of number of agree or disagree staff. Due to the great number of agree individuals with 95% confidence, it is claimed that the staff, who agreed with the theory of “obstacles and difficulties of establishing and implementing operational budgeting system in the Municipality of Qom are related to the environmental, technical and process factors, the null hypothesis is rejected and the opposite hypothesis is confirmed.

The responses mean is used to measure general outlook and perspective of the groups. Kolmogorov-Smirnov test is used to check the assumption of normality of the data from the comparison with a constant test conditions.

H0: Distribution of statistical data is a normal distribution.
H1: Distribution of statistical data is not the normal distribution.

**Table 1: Results of 1st and 2nd Secondary Hypothesis Binominal Test**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Agreed QTY</th>
<th>Agreed Ratio (%)</th>
<th>Disagreed QTY</th>
<th>Disagreed Ratio (Percentage)</th>
<th>Probability Value (P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis No. 1</td>
<td>33</td>
<td>66%</td>
<td>17</td>
<td>34%</td>
<td>0.033</td>
</tr>
<tr>
<td>Hypothesis No. 2</td>
<td>38</td>
<td>76%</td>
<td>12</td>
<td>24%</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

**Table 2: 1st and 2nd Sub-Hypotheses Kolmogorov-Smirnov Test**

<table>
<thead>
<tr>
<th>Hypothesis of Normality</th>
<th>Kolmogorov-Smirnov Statistics</th>
<th>Probability Value (P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st sub-hypothesis</td>
<td>0.68</td>
<td>0.74</td>
</tr>
<tr>
<td>2nd sub-hypothesis</td>
<td>1.31</td>
<td>0.065</td>
</tr>
</tbody>
</table>

Since the probability value is greater than 0.05, null hypothesis (H0) is accepted and hypothesis 1 (H1) is rejected based on following data from the normal distribution. Thereupon, there is no significant difference between distribution of these data and normal distribution. However, mean test can be used. The questions related to the mentioned indicators had been proposed to collect data through questionnaire for these factors. In order to answer the questions, respondents had to select a number from 1
to 9 for scoring the effect of the factors. So, the mean interval of figure from 1 to 9 is selected 5. So that, “5” was chosen as the mean test base in this study. In 1st and 2nd sub-hypotheses test, if average scores, given to the statements related to this theory, was found smaller than or equal to 5, it means that environmental factors, technical and process factors are not the main obstacles and problems of implementing operational budgeting system in the Municipality of Qom in view of respondents. But if average responses are found more than 5, it means that environmental factors, technical and process factors are the main obstacles and problems of implementing operational budgeting system in the Municipality of Qom in view of respondents.

Table 3: Result of Single Sample T-Test for 1st and 2nd Secondary Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Mean</th>
<th>(SD)</th>
<th>T Statistics</th>
<th>Freedom Degree</th>
<th>Confidence Interval Low limit</th>
<th>Confidence Interval High limit</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>5.50</td>
<td>1.19</td>
<td>2.98</td>
<td>49</td>
<td>0.16</td>
<td>0.84</td>
<td>0.004</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>5.96</td>
<td>1.38</td>
<td>4.93</td>
<td>49</td>
<td>0.57</td>
<td>1.35</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

Given the calculated mean and lower probability value from 0.05, null hypothesis is rejected with number “5” based on equal index mean representing secondary hypotheses (1 and 2). Thereupon, with 95% confidence, it is claimed that the mentioned index mean is greater than “5” significantly.

Secondary Hypothesis (3)

Obstacles and difficulties of implementing operational budgeting in the Municipality of Qom are related to the human factors. This hypothesis is comprised of four main indexes, including indicators of prequalification and terms of occupations, salary and fringe benefits, reward and punishment system and technical training. No question was given with regard to this hypothesis, but this hypothesis was stipulated as default data in questionnaire, work experience, academic degree, field of study, and position in the workplace. On the other hand, the documents and certificates available in personnel file of manpower were studied thoroughly. In addition, relevant units were inquired and questioned in order to fill out the other information such as setting training hours passed in the Training Unit. The following results were obtained according to the extracted information:

- 38%, 38% and 32% of individuals had academic degrees i.e. BA, Masters’ and below BA degree (undergraduate) respectively. In other words, 40% of managers and approx. 30% of experts hold undergraduate academic degree (below BA degree). So, the budget of the municipality is not in acceptable level in terms of academic degree of experts and managers.
- Based on the results obtained in this regard, it was found that approx. 18% of individuals had diploma degree in Experimental Sciences and Mathematics while 52% of individuals had academic degree in Accounting, Management and Economy. Moreover, 30% of the individuals had degrees other than academic degrees. In other words, approx. half of the managers and experts relevant to the budget system; had not been trained in the relevant disciplines. However, academic degree is inacceptable in this respect.
- In terms of working experience, 42% of individuals had work experience less than five (5) years and approx. 26% of individuals had work experiences less than 10 years. Only 30% of the individuals had work experience for long years in the budgeting system. In other words, approx. 50% of managers and 80% of experts had work experience less than 10 years in the budgeting system. So, work experience of manages and experts are inacceptable in this study.
- In terms of type of employment, it was observed that 46% of managers and 65% of experts had been employed based on temporary contract and only 13% of managers and 11% of experts had been employed as official employees (crew members).
- Based on the results obtained in this regard, it was observed that all experts, worked in the budget department of the municipality and other affiliated units, had received monthly salary less than 12,000,000 rials and almost half of these individuals had received monthly salary less than 8,000,000 rials. it should be noted that 60% of managers had received monthly salary less than 12,000,000 rials. So, it can be concluded that salary and fringe benefits of these individuals are inacceptable and unfair in comparison with the salary and fringe benefits received by same-level managers and experts in other large cities of the country.
- In terms of value of training hours related to the budgeting system, it was specified that more than 90% of managers and 80% of experts had passed training courses less than 50 man/hours related to the budgeting system. Meanwhile, more than
60% experts had participated in the training courses less than 20 man/hour which is acceptable and satisfactory. So, it can be inferred that the amount of training hours, related to the budgeting system, is found very low.

With studying factors of this hypothesis, it can be concluded that manpower of the Municipality of Qom in the field of budgeting system are unacceptable level in terms of specialty, education, work experience, salary and fringe benefits, training hours, reward and punishment system, etc. On the other hand, most respondents have explained weakness of manpower in terms of specialty, skill, education, experience and training as the main factor to impendent operational budgeting system in the Municipality of Qom. Generally, this hypothesis is accepted. At this stage, the mean rank of factors posed in each of hypotheses was compared using Friedman Test and its results were shown in the below tables.

Since the probability value is less than 0.05, then, null hypothesis is rejected based on equality of ratings given to the factors posed in each of hypotheses. Thereupon, with 95% confidence, it is claimed that there is significant difference between ratings given to the factors posed in each of hypotheses.

Table 4: Average Result of Rating of Proposed Factors

<table>
<thead>
<tr>
<th>Factors proposed in each of hypotheses</th>
<th>Human factor</th>
<th>Technical and process factor</th>
<th>Environmental factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average rating</td>
<td>2.46</td>
<td>1.98</td>
<td>1.56</td>
</tr>
</tbody>
</table>

Table 5: Result of Rating Test Related to the Factors Posed in Each of Hypotheses

<table>
<thead>
<tr>
<th>Friedman Test</th>
<th>Chi-Square Statistics</th>
<th>Degree of Freedom</th>
<th>Probability Value (P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20.28</td>
<td>2</td>
<td>0.0001 &lt;</td>
</tr>
</tbody>
</table>

Match Analysis Tests

Discipline and educational degree and Spearman Correlation Coefficient Test for experience was studied in the field of budgeting, impact of specifications of respondents (demographic) using Kruskal-Wallis ANOVA tests.

Table 6: Kruskal-Wallis Rank ANOVA Test – Academic and Educational Degre (Rank and Qualitative Data)

<table>
<thead>
<tr>
<th>Kruskal-Wallis Rank ANOVA Test</th>
<th>Factor</th>
<th>Demographic variable</th>
<th>Chi-Square Statistics</th>
<th>Degree of Freedom</th>
<th>Probability Value (P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>Education</td>
<td>2.16</td>
<td>3</td>
<td>0.54</td>
<td></td>
</tr>
<tr>
<td>Educational degree</td>
<td>Environmental</td>
<td>4.27</td>
<td>3</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td>Technical and process</td>
<td>Education</td>
<td>2.99</td>
<td>3</td>
<td>0.394</td>
<td></td>
</tr>
<tr>
<td>Academic degree</td>
<td>Technical and process</td>
<td>2.98</td>
<td>3</td>
<td>0.39</td>
<td></td>
</tr>
</tbody>
</table>

Since the probability value is greater than 0.05, H0 hypothesis cannot be rejected according to the available evidences based on lack of existence of correlation between variables of environmental and experience factors in the field of formulating and providing budget of the organization. Thereupon, it cannot be claimed that there is significant difference between rank of environmental, technical and process factors in different academic disciplines and degrees.

Table 7: Spearman Correlation Coefficient Test – Experience in Budgeting Affairs

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Correlation of variables</th>
<th>Spearman correlation coefficient</th>
<th>Probability Value (P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>Correlation of variables of environmental and experience factors</td>
<td>-0.016</td>
<td>0.914</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>Correlation of variables of technical and process and experience factors</td>
<td>-0.059</td>
<td>0.685</td>
</tr>
</tbody>
</table>

Since probability value exceeds 0.05, H0 hypothesis cannot be rejected with the available evidences based on lack of existence of correlation between variables of environmental and experience factors in the field of formulating and providing budget of the organization. Thereupon, it cannot be claimed that there is significant difference between rank of environmental, technical and process factors in different educational disciplines and degrees.

Analytical Hierarchy Process (AHP)

For further study and assurance, a sample, as many as 20 individuals among university professors, university lecturers with academic degrees in Accounting, Management, Economy and Engineering, was selected randomly and specific questionnaires were designed using AHP method and were distributed among them. A number of four paired comparison matrix was designed due to the initial assumptions for solving this problem. In each matrix, every respondent was asked to compare two subjects due to an index quantitatively and numerically and with the selection of a number from
1 to 9. In this case, selection of number “1” is meant equality of efficacy of indexes while number “9” is meant much more preference of an index than the other index. Always, the number inserted in the matrix is meant that the criterion written in each line is significant and has high preference than others. If the criterion, inserted in the column, is found with high significance, number one should be divided into the relevant figure and also should be registered in the table as well.

Table 8: Ranking Weighed Average of Each of Indicators Related to Human, Environmental, Technical and Process Factors: (According to Each Factor)

<table>
<thead>
<tr>
<th>Average Weight</th>
<th>Environmental Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/05925</td>
<td>Operational auditing</td>
</tr>
<tr>
<td>0/04475</td>
<td>Government support</td>
</tr>
<tr>
<td>0/04105</td>
<td>Accountability of organization</td>
</tr>
<tr>
<td>0/0178</td>
<td>Agreement and coordination between the executive and legislative branches</td>
</tr>
<tr>
<td>0/01315</td>
<td>Political conditions</td>
</tr>
<tr>
<td>Average Weight</td>
<td>Technical and process factor</td>
</tr>
<tr>
<td>0/1184</td>
<td>Accounting system</td>
</tr>
<tr>
<td>0/0628</td>
<td>Strategic program</td>
</tr>
<tr>
<td>0/05955</td>
<td>Management data system</td>
</tr>
<tr>
<td>0/0412</td>
<td>Validity of indicator</td>
</tr>
<tr>
<td>0/03805</td>
<td>Validation</td>
</tr>
<tr>
<td>Average Weight</td>
<td>Human factor</td>
</tr>
<tr>
<td>0/1415</td>
<td>Education</td>
</tr>
<tr>
<td>0/1424</td>
<td>Terms of occupations</td>
</tr>
<tr>
<td>0/0938</td>
<td>Specialty and skill and expertise</td>
</tr>
<tr>
<td>0/06585</td>
<td>Reward and punishment system</td>
</tr>
<tr>
<td>0/049</td>
<td>Salary and fringe benefits</td>
</tr>
</tbody>
</table>

Table 9: Rating each of Human, Technical, Process and Environmental Factors in view of Respondents

<table>
<thead>
<tr>
<th>Weight</th>
<th>Factor</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/5361</td>
<td>Human</td>
<td>1</td>
</tr>
<tr>
<td>0/28755</td>
<td>Technical and process</td>
<td>2</td>
</tr>
<tr>
<td>0/17615</td>
<td>Environmental</td>
<td>3</td>
</tr>
</tbody>
</table>

It is observed that the results obtained from viewpoints of each two groups of respondents was equal in the first sample used with Friedman Statistical Test and in second sample used with AHP method. The results show convergence of responses in one equal direction. In other words, each two groups posed impact and order of factors due to the desired indicators as follows:
1- Human factor, 2- Technical and Process Factor, 3- Environmental Factor

Conclusion
As mentioned in the previous parts, hypotheses 1 and 2 were tested using binominal test and mean test to one constant figure or the same single-sample T test and were accepted with 95% confidence. The 3rd hypothesis was studied due to the descriptive statistics which was accepted. Now, all factors along with relevant indicators have been arranged according to the mean as shown in Table 10.

Table 10: Rating Indicators in Various Factors

<table>
<thead>
<tr>
<th>Factors</th>
<th>Order</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human factor</td>
<td>1</td>
<td>Lack of observing terms of occupations (I educational and experimental terms) and specialty, skill and expertise</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Lack of existence of necessary technical training with regard to budgeting</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Lack of existence of proper salary and fringe benefits system</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Lack of existence of reward and punishment system consistent with the activities</td>
</tr>
<tr>
<td>Technical and process factor</td>
<td>1</td>
<td>Lack of change in consistent with the accounting and reporting system</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Lack of existence of strategic planning</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Lack of using management data system</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Lack of existence of measurement indicator in budgeting</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Lack of existence of validity of indicator in budgeting</td>
</tr>
<tr>
<td>Environmental Factor</td>
<td>1</td>
<td>Lack of existence of operational auditing</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Lack of governmental support with establishing legal requirements</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Lack of accountability of organization in the society</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Lack of agreement and coordination between legislative and executive branches</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Conditions and specifications affecting each political system</td>
</tr>
</tbody>
</table>

Suggestions
1- Employing and using merited staff and personnel in terms of education, work experience, educational background, specialty, skill and expertise in the field of budgeting, hiring the most experienced and expert manpower in the form of consultation in the organization to help execute operational budgeting
2- Creating job security and taking advantage of extraordinary and special fringe benefits such as life insurance, retirement plans, etc. to personnel for boosting motivation of personnel, safeguarding and honoring experienced and skilled manpower at the organization and employing them as official crew members,
3- Organizing personal and non-personal training courses and also organizing tutorial workshops, seminars, conferences and invigorating motivation among personnel of organization,
4- Planning and formulating strategic planning at the organizations and using it in line with
materializing most objectives of the organization, so that operational budgeting is one of them.

5- Efficient and optimal use of comprehensive management system and equipping organization to the improved systems and methods, classifying data and financial information,

6- Establishing comprehensive accounting system based on final cost and changing current accounting system from cash and semi-commitment to full commitment, pacing suitable ground for streamlining the adopted change such as training current manpower and employing the most experienced and expert manpower in this field, providing software packages and necessary data system

7- Determination of proper, valid and standard indicators with the activities of each organization, etc.

8- Making effort in line with establishing operational auditing in the executive organizations to study performance of managers of the organizations based on three objectives of 1- efficacy, 2-effectiveness and 3- economical use of activities,

9- Setting up more stable political conditions and minimizing the political considerations in final and budget decision makings and other lateral issues in the budgeting system of the organizations

10- Government should support the organizations through invigoration of motivation with offering special credits and facilities to the organizations as commissioners of operational budgeting and removing some redundant and complex notes and paragraphs related to the budgeting in order to ease current affairs, etc.

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