

## **IMPLEMENTATION OF OPERATIONAL BUDGET ACCORDING TO ACTIVITY-BASED COSTING IN CHAHAR MAHAL BAKHTIARI AND ISFAHAN PROVINCES**

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### **Abstract**

This Research is an applied research and is also a descriptive research study in which to collect the required information a questionnaire was used. The research population is including government agencies of Chahar Mahal Bakhtiari and Isfahan provinces which in 2011 have had used the provincial budget. The population is consisting of Accountants or their deputies, financial managers of the agencies that lacks accountancy, accounting officials, budget analysts, auditors of Economic Affairs and Finance, Auditing, and government agencies working in Isfahan Province that is totally 285 people. We determined the amount of the sample size with the used of Cochran sampling method which the statistical sample is 150 of these government agencies which have been selected through the simple random sampling method. In order to analyze the data resulted from collected questionnaires deductive and descriptive statistical methods are used. Also, we used Kolmogorov-Smirnov Tests to normality of test data. And to test the hypothesis of the research we used z test. Findings show that the ability to evaluate the performance of the provincial government in the mentioned provinces in implementing activity-based costing method in the operating budget is more than average and also, personnel ability and technical ability of the state agencies to implement an operational budget according to activity-based costing is less than average.

*Key words: operational budgeting, government agencies, activity-based costing*

### **Introduction**

The budget is the most important financial state document, plays an important role in achieving the long-term development programs in the country, Therefore, efforts to improve it, and has always been the case. Generally, until recent decades, the budget debate was focused on the state inputs, such as the amount of resources, staffing and etc., but Today, with the development of a culture of accountability, officials (as respondent) and citizens (as who want proper responses) requested additional information such as: Results or outputs, effectiveness, efficiency and Cost of activities included in the state budget. For this purpose

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the operating budget using scientific costing methods and, strategic planning methodologies, provides a powerful tool that its result is the calculation of the exact price of the products and services and also is responsive to an important part of the information requirements above. Among these techniques is Activity Based Costing that is a useful technique to study the factors affecting the performance of the operating budgets of government agencies (the subject of the current research)?

Operating budgeting is a prominent change in the government budgeting that plays a very important role in developing countries (Andrews, 2004). Characteristic and distinctive feature of this system is to focus on the objectives and results of operations. In operating budgeting, In addition to the funds separation to Functions, programs, activities and projects, the volume of operations and administrative costs of government operations and government agencies according to the scientific method such as accounting the net cost is also measured. In other words, the figures predicted in the operating budget, based on detailed analysis of the programs and operations and costs are calculated and determined based on the goals and objectives of state organizations (Jenabi Dehkordi, 1998).

Today, due to the lack of information needed by management by traditional costing systems, along with non-government agencies and governmental and private agencies are inclined to the use of activity-based costing (ABC) – compared to other methods operating budget, namely the work study method and cost-oriented method. Activity-based costing system is a new attitude In order to provide useful information for the purposes of reforming goals within and outside the organization and has two basic approaches; First view is indicating the costs allocation from resources to the activities and in the next phase from activities to the goals (cost object).

Activity-based costing (ABC) will change the current culture to determine the budget which is based on incremental budgeting. The implementation of this method is a powerful management tool for managers and Executive agencies are forced to adopt policies and structural reforms to reduce the cost of production of goods and services and revise in the quantity and quality of services for coordination between production costs and allocated budget.

According to studies by writers and scholars such Foltin (1999), Andrews (2004), Krumwiede (1997) and ... Implementation of activity-based costing (ABC) in budgeting systems and program budgeting reform of The operating budget depends on various factors such capabilities (including the ability to evaluate the performance capabilities of staff and technical capabilities), legitimacy (including legal legitimacy, and procedures legitimacy and organizational legality) and acceptance (including political acceptability, management compliance and compatible incentive).

Without recognizing the relationships and interactions among the effective factors on acceptance and applying function data, it is hard to talk about the operational budgeting and introducing it as a best budgeting system (Andrews, 2004).

Budgeting system in Iran until 2005 was Program based, but with the changes that come along with the other countries in the budgeting system of Iran, since in 1385 operating budget is experienced. Considering this fact, due to the above factors, we want to determine that Does in the accounting system of the Isfahan Province' provincial government agencies, which allocated amounting to 5.8 percent of the total national budget the grounds and requisite necessities are provided in terms of abilities (competencies in performance appraisal, employee empowerment and technical capability), legitimacy (the legitimacy of legal, procedural and organizational) and acceptance (acceptance of political, administrative and incentive compatible) implementation of activity-based costing and the use of information in the operating budget or not? In the meantime, there will be a need for further research to determine whether these areas with agents outside of the accounting systems are

adopted comprehensive operational budget or not? Surely, to identify and investigate factors affecting the performance of the application of activity-based costing (ABC) and full acceptance of the operational budget, Effective step towards achieving better government performance and accountability will be taken.

Andrews (2004) in his article entitled "credibility, legitimacy and reform capabilities of operational budgeting," has presented the Institutional three-parameter model Shah (1989) for the public sector. This paper presents the implementation and application of the factors affecting the performance of the information stated in the operating budget and assumes these factors and their interactions as the requirement of a program to reform the budget process right. Andrews believes that governments that want to adopt and implement the operational budget, require the identification and dissemination of their weaknesses in each of the above three fields.

Vann (2001) in an article entitled "The government's use of activity-based costing", existence of the legitimacy and the acceptability of government officials assumes imperative for the successful ABC implementation and notes that most government officials have now little interest in knowing the actual data about the cost of services and products, and if they are interested, they rely more on financial procedures and old systems. In this paper by some examples, we have tried to use ABC in areas such as performance evaluation, benchmarking, and comparative evaluation and divesting non-ceding some activities to the private sector or contractors, to determine the real cost, savings, increasing awareness of managers and etc. are described.

Babajani (2005) in an article entitled "Analysis of the legal framework of accounting systems of the executive agencies of the country," stated that monitor and evaluate the operational performance budgeting system without the use of an accounting system and financial reporting based on measures of economic resources and related to the activity-based costing system won't be feasible. Also Babajani (2004) in another article titled as "autonomy granted to universities and higher education institutions' suggests that the estimated cost of the student requires the use of activity-based budgeting and the estimated cost of the students must also be calculated by the use of activity-based costing system and establishment of these two systems is considered inevitable for the development and modernization of the financial systems of higher education institutions.

### **Hypothesis**

*The main hypothesis 1: Government agencies of Chahar Mahal Bakhtiari and Isfahan provinces have the ability to implementation of operational budget according to activity-based costing.*

Subsidiary assumptions related to the hypothesis are as follows:

1. 1. Government agencies of Chahar Mahal Bakhtiari and Isfahan provinces have the evaluating performance ability to implementation of activity-based costing in the operational budget.
1. 2-Government agencies of Chahar Mahal Bakhtiari and Isfahan provinces have Personnel ability to implementation of activity-based costing in the operational budget.
2. 3- Government agencies of Chahar Mahal Bakhtiari and Isfahan provinces have the technical ability to implementation of activity-based costing in the operational budget.

### **Methodology**

In this study, the entire state agencies of Chahar Mahal Bakhtiari and Isfahan provinces, except for the following which has unique conditions, were chosen as statistical population.

1) Due to the very low percentage of the total municipal budget, about one percent of the provincial credit, and also because of the problems caused by the spatial distribution of different financial structures - often financial resources is from domestic credit - municipalities were excluded from the sample.

2) State agencies that have (national) the budget, due to lack of access to the notified credit funds of the country were excluded from the sample.

3) Due to the dissolution of the planning and management organization and integration to the Governor, it was excluded from the study population.

However, considering the issues and the limitations of this study, the total study population consisted of 50 state agencies.

Total studied population is consisting of Accountants or their deputies, financial managers of the agencies that lacks accountancy, accounting officials, budget analysts, auditors of Economic Affairs and Finance, Auditing, and government agencies working in Isfahan Province that is totally 285 people.

We determined the amount of the sample size with the used of Cochran sampling method which the statistical sample is 150 of these government agencies which have been selected through the simple random sampling method.

In order to analyze the data resulted from collected questionnaires deductive and descriptive statistical methods are used. Also, we used Kolmogorov-Smirnov Tests to normality of test data. And we used z-test to test the hypotheses of the research.

### **Findings**

In all tests of z for sub hypotheses, we will put all sub-hypotheses mentioned in section 4 of the assumption or presumption against claims (H1) we'll assume the Average hypothetical 3.

To all tests of the hypothesis, the hypothesis H1 is the hypothesis that the mean of the responses of 95% is larger than 3 and H0 hypothesis states that the mean of the responses is less than or equal to 3.

$$\begin{cases} H_0 : \mu \leq 3 \\ H_1 : \mu > 3 \end{cases}$$

Z test for the hypothesis of the first sub-hypothesis of the research:

The table1- below shows the results of the study's first sub-hypotheses testing.

Table 1- sub-hypotheses comparison of the mean point of first hypothesis with assumptive mean of 3.

Variable	n	Median	Mean	S.D	df	Z
evaluating performance ability	150	3	3.1267	0.719	149	2.157

Given the observed Z (Z statistics) and with reference to a standardized table Z, the P-Value is equal to 0.0158; therefore, due to the smaller amount of P-Value of significance level (0.05), the null hypothesis will be rejected. So, the ability to evaluate the performance of the provincial government in the mentioned provinces in implementing activity-based costing method in the operating budget is more than average.

Z test for the hypothesis of the second sub-hypothesis of the research:

Table 2- sub-hypotheses comparison of the mean point of second hypothesis with assumptive mean of 3.

Variable	n	Median	Mean	S.D	df	Z
Personnel ability	150	3	2.4622	0.794	149	-8.294

Given the observed Z (Z statistics) and with reference to a standardized table Z, the P-Value is equal to 0.999; therefore, due to the larger amount of P-Value of significance level (0.05), the null hypothesis won't be rejected. So, the personnel ability of the state agencies to implement an operational budget according to activity-based costing is less than average.

Z test for the hypothesis of the third sub-hypothesis of the research:

Table 3- sub-hypotheses comparison of the mean point of third hypothesis with assumptive mean of 3.

Variable	n	Median	Mean	S.D	df	Z
technical ability	150	3	2.1556	0.843	149	-12.24

Given the observed Z (Z statistics) and with reference to a standardized table Z, the P-Value is equal to 0.999; therefore, due to the larger amount of P-Value of significance level (0.05), the null hypothesis won't be rejected. So, the technical ability of the state agencies to implement an operational budget according to activity-based costing is less than average.

Based on the results of this study, the following recommendations to eliminate barriers of the implementation of activity-based costing in the state operating budget are presented:

1. Activity Based Costing System is fruitful whenever all participants understand and implement it so; staff training plays a major role in learning and empowerment of individuals. It is proposed that state employees receive training and universities educational programs in the field to be modified.
2. The technical capabilities increases using available databases in mechanized systems of budget management and using software proper to ABC, It is recommended to be installed software for costs data collection.

### **Resources**

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