

Study and Analysis of Establishing Performance Budgeting System in Promoting Annual Program of Universities

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Abstract

Performance-based budgeting, focusing on program results and calculating total cost, is seeking transparency and presenting appropriate information for confidence-building. Regarding its positive role in annual program of universities and problems facing budgeting system, various advantages of this method for budgeting resulted in considering it as a purpose for several years. On the other hand annual programs of universities are designed based on their main objective that is teaching students and empowering them in different fields regarding response to the job market. Most universities perform program or incremental budgeting in establishing their annual programs and detailed budget. By ignoring past realities and performances and without taking into account activity levels, this trend causes university managers not to use scientific accounting methods. Therefore, this article discusses the method of document mining and explores and analyzes performance budgeting system in promoting annual programs of universities. Depending on its advantages and purposes specially increasing efficiency of expenses and its results, we can conclude that establishing budgeting system based on performance in universities is a necessity in achieving general and specific purposes.

Keywords: performance-based budgeting, university, opportunity.

Introduction

Budget as a representation of government operations, is the most significant document that contributes executive organs in achieving goals of vision plan, developmental programs of country and efficient performance of universities. Therefore, efforts in improving this financial document and budgeting efficiency in implementing activities of executive organs is a challenging and noteworthy matter. Performance-based budgeting is a kind of programming, budgeting and analyzing system that focuses on the relationship between spent budget and expected results. This kind of budgeting focusing on a pivotal outcome attempts to obtain goals of economy, transparency, efficiency and effectiveness of the budget (Hasan Abadi and Najar saraf, 2007).

Budgeting based on performances is considered as a budgeting method in a wide range of world including our country, Iran. Performance-based budgeting adds economic efficiency and effectiveness to the traditional dimension of budgeting. Since targeted allocation of budget to activities in each organization in addition to transparency of the distribution of resources can provide the possibility of performance monitoring and access to results fees, performance budgeting method is an effective step in increasing efficiency and effectiveness of credits (Khodamipoor and Zeinali, 2007).

On the other hand, budgeting in public universities cannot be separated from activity environment. Thus budgeting concept and performance management for universities necessitate intervention of specific factors like governmental control, social accountability and funding through taxes (Yamamoto, 2010).

Nowadays, universities are faced with rapid growth of their applicants and regarding many limitations, among them financial is the most significant one, are forced to revise and reorganize mechanisms of earning process and resource allocation. Reality indicate that absolute value of available resources in universities has increased but received resources per student or in the other word, per capita budget, has not elevated. Therefore, in addition to factors related to effectiveness, reducing per capita resource demands that universities function more accurately and efficiently in consumption of their available resources (Kajari, 2010).

Not using quantitative and mathematical theories in university budgets, in which necessary financial resources are anticipated and credit costs and acquisitions of capital assets are determined, cause bewilderment and lack of optimum allocation of resources (Kholoosi, 2010). With approval of structure act of ministry of science, research and technology, necessity of major changes in Iran academic management system is confirmed (Article 10 of the law goals and duties and organization of the ministry of science, research and technology and article 49 of the fourth development plan). In the fourth program, universities are not only obliged to change their budget system from programming to performance but in implementing "A" article 49 of the fourth development program are also bound to provision of performance budget to achieve the cost of educational and research activities and determine the cost per student to receive the share of state budget from the general budget. Thus, with respect to university management, change in budgeting systems of universities, revision and fundamental change in present budgeting system is more than ever necessary (Saketi and Saeedi, 2009).

Statement of the problem

Performance-based budgeting as annual program together with annual budget reflects the relationship between allocated funds to each program and results from that program. This means that by any amount of expense in each program, some given goals should be supplied (Panahi, 2005).

Performance-based budgeting is the strategic program of the organization regarding its goals and functions that reflect a process oriented toward changing quantifiable data to meaningful information concerning program results (Melkers and Willoghby, 2000).

Performance budgeting is a current process that involves all managers from the chief to individual and subsidiary managers. This process includes feedback loop that provide the top managers with correct information for managing their activities. Finally performance budgeting results in more effective exploitation of resources. Managers would be able to use the available resources toward achieving expected results more efficiently (Ansari and Zeinali, 2008).

Since annual programs of universities address educational, cultural, research, administrative and financial issues and attempt to achieve relevant purposes, this article is seeking a response for this question that “what is the role of performance-based budgeting in the annual program of universities?”

Review of literature

Khodamipoor and Zeinali (2008) in the article “ *budgeting system based on performance and its effect on performance and accountability of government* “ stresses that among the intended goals for implementing performance budgeting system , goal of accountability creates a more powerful basis for the achievement in comparison to budget allocation.

Performance-based budgeting is the most direct link between performance information and growth of efficiency and quality of services. This kind of budgeting brings about a better performance in government through quality management of budget and reduction in costs and also enhancement of customer satisfaction. In the other word, it causes more effective exploitation of resources and managers would be able to use available resources in achieving intended goals of the budget more efficiently.

Ghadimpoor and Tarighi (2009) in the article” *performance budgeting and its relationship with performance auditing*” declared that with respect to goals, performance-based budgeting and performance auditing have a close relationship and are oriented toward the same purposes and as the basic component of financial reporting, are closely connected in such a way that the two systems are supplementary and revolves around three main axes of efficiency, effectiveness and economic efficiency .Only under the association of these two, we can obtain increased quality of financial reporting system and concerning accountability , this system can turns into a powerful tool for government. Furthermore, these researcher stressed that for an accurate and complete accountability in public sectors and also for having a successful performance budgeting system, change and development in public audit system and implementation of performance accounting are necessary.

Pak Maram et al, (2012) in a study called “*identification and prioritization of effective factors on performance budgeting by using TOPPLIS method in telecommunication company*” in west Azarbaijan province concluded that coordination among all units is necessary for implementing performance budgeting and lack of harmony in organization is an obstacle in this way.

Azar et al,(2014) in their article” *budgeting model based on performance : suitable optimization approach* “ expressed that necessity of restructuring university funding from program to performance causes budget allocation based on significance of each program and per capita of student approved by ministry of science, research and technology.

Poor Ali and Kakvan (2014) in the study” *requirements of establishing performance budgeting* (case study: *Babol University of Medical Sciences and Health Services*)” refer to preparation of all units in implementing performance budgeting aiming at achieving goals of university programs and effectiveness of results.

Yung (2003) in the article “*performance-based budgeting system*” concluded that using performance information and performance based on budgeting result in better decisions in credit and budget allocation in the assembly. But political, social and financial factors may also intervene in this process. However, overall result is that using performance-based budgeting increases effectiveness of government consumed resources.

Jordan and Hakbort (2005) conducted a study called” *objectives and success of implementation of performance budgeting*” to explore the importance of accountability and its appropriate realization by implementing performance budgeting system. They found that the main goal of government for implementing performance budgeting system is the improvement of program accountability. Then researchers studied the success of achieving goals of performance-based budgeting system in which the amount of achievement in accountability had the highest score and the lowest one was dedicated to allocated budget. In exploring factors of performance budgeting as a tool for accountability, it was concluded that performance measurements improve accountability with regard to executive organs.

Yi Lu et al, (2011) in their work” *performance budgeting in USA – What's Law got to do with it?* “studied the content of performance budgeting law and its relationship with the implementing quality of performance budgeting system . Recent studies have shown that where performance budgeting system is implemented appropriately, there is more approval of acts and by-laws about performance budgeting system in comparison to those countries that do not implement performance budgeting system or have a poor implementation of it. The results of their study illustrated that performance-based budgeting law including detailed guidelines regarding development, reporting and using performance data results in more probability of using performance-based budgeting system in USA.

Theoretical principles

Budgeting- based on performance

1. Performance-based budgeting reflects annual program and annual budget that shows relationship between fee allocation for each program and obtained results of that program. This means that regarding the amount of cost in each program, some given goals should be obtained (Kordbache, 2006).
2. Performance-based budgeting is a kind of budgeting system that utilizes systematically performance indicators in allocation of scarce general resources (Ghahramani, 2013).
3. Farajvand in the book “ *process of budget formulation to control*” define performance-based budgeting in this way “ performance-based budgeting or performance based on operations is the budget formulated based on responsibilities , operations and projects that governmental organizations take the charge of its implementation in budget formulation, instead of goods and services that are bought by the system or in the other hand instead of means for implementing activities, activities themselves and the costs of the

works to be done are taken into account. In performance budgeting in addition to credit separation to responsibilities, programs , activities , designs , operating costs of government and governmental organs are calculated and measured according to scientific methods like cost accounting , work management .Expected figures in performance budgeting must be subjected to detailed analysis of programs, activities and also cost. Performance budgeting specify cost of a hospital bed and also the costs of a 100-bed hospital or time and cost of spent in construction of a 5-class school (Farajvand,2004).

4. Farzib in the book” performance-based budgeting is actually the same as program budgeting that analyzes implementation of programs more exactly and explicitly regarding benefits and costs and finds the causes of increased prices and finally contributes to organization management. Establishing this system demands exact information about implementation of program, activity operation of each unit. Therefore, moving toward performance budgeting brings about development and maintenance of accounts and details in financial affairs of the system (Farzib, 2002).

Annual programs of universities

Annual program generally indicates executive operations of government that is formulated annually and submitted to legislative assembly together with general budget. In addition to it, given goals and annual executive operations of each executive organ with their credit are determined (article 4, first chapter, budget and program law of the country).

Annual program of a university also include all goals in educational, student, research and cultural goals toward an optimum education and training of students for responding to job market and social environment in obtaining great objectives of Islamic Republic of Iran (site of planning and budget of ministry of science).

According to article 25 financial and trading by-law of universities, proposed annual program based on general policies, educational and research goals are formulated in a deadline and are approved by permanent committee of the Board of Trustee. Furthermore, regarding article 26 of this by-law, annual program or in the other word detailed budget of universities from the list of total country budget, general or specific, are submitted to universities. Funds remained unused in previous years and other resources proposed by chancellor must be approved by the Board of Trustee up to the end of September (financial and trading by-law of universities and educational centers of science ministry).

With respect to the matter that annual program (detailed budget) in most universities is still formulated based on estimation method and budgeting method is not focused on performance exactly and completely, we cannot expect that universities achieve goals and results of their annual program. The reason is the necessity of transforming accounting system from cash accounting to accrual accounting system for implementing performance budgeting.

In spite of the emphasis of the office of management and budget of the science ministry, most universities are still using cash accounting system. Under this condition, we can neither achieve effective results nor specify all expenses and their practical feedback (Yavari, 2013).

budgeting purposes based on performance

Generally we can define purposes of performance budgeting in this way:

1. Presenting an appropriate basis for decision making on the budget.
2. Determining measurable and expected results obtainable from a specific budget allocation.
3. Decision-making focused on the main issues and challenges facing the organ.

4. Developing a logical process for decision- making on budget that is directly associated with budgeting process, implementing, controlling and performance reporting.
5. Improvement of program planning and formulating.
6. Proposing the best possible tools based on results for assessing society regarding consumption of the country resources for satisfying essential requirements.
7. Establishing a relationship between budget and performance results.
8. Presenting measurable information for the Judiciary, Legislative and Executive to control the achievement and success of program with respect to budget allocation.
9. Providing incentives for performance management based on continuous improvement.
10. Possibility of effective monitoring on operations.
11. Facilitation and improvement of revised budget in all administrative steps specially in legislative level.
12. Transparency of budgeting process.
13. Performance improvement through association between budget and performance program.
14. Strengthening sense of responsibility in managers regarding effective decision-making based on budgeting process (Borzoo Zade ,2011).

Advantages of performance budgeting

We can summarize advantages of performance budgeting briefly:

1. Increased accountability based on results.
2. Improvement of performance management.
3. Improvement of allocation method.
4. Presenting a valuable diagnostic model.
5. Contributing to budget justification: an effective performance budgeting is more transparent in comparison to traditional budgeting. By using obvious scales performance budgeting can measure overall cost of the activity as a basis for outcomes of programs and purposes and is a valuable tool for exploring the effect of changes in expenses on results.
6. A basis for performance management system.
7. Allows mutual goals in programs.
8. Protection of informed and more tangible decisions.

requirements of performance budgeting

Requirements of performance budgeting in Iran can be divided into two groups of technical and logical requirements.

technical requirements

1. Planning and operation control: basis for cost estimation in budget formulation focused on performance is action plan. Therefore, a close relationship is developed between budget formulation and budget implementation. Action plan is the basis of credits and by establishing comprehensive and detailed reporting systems periodically, we can compare the amount of performance actions with anticipated actions and determine deviation of action results from action plan (based on expenses and credits). Therefore, preparing an action plan and establishing reporting systems that require budget formulation

based on performance, is an effective tool for controlling actions and preventing from occurrence or repetitions of deviations. Thus, central monitoring of top authorities of organization is facilitated.

2. Review and approval of budget estimations: budget formulation based on performance creates better quality and review in budget estimations (especially legislative step). Budget formulation based on performance results prevents legislator from playing a significant role in the final revision. The main reason is that budget is formulated according to specific methods and approaches based on expert reviews. Furthermore, study of performance budgeting require much spent time and intervention. Thus budget formulation based on performance obliged legislator not to reduce credits without strong logic and reason. Yet, this matter concerns those people in parliament that consider parliament intervention as a necessity for democracy. There is no doubt that budget formulation-based on performance strengthens the practical power of executive branch in budget formulation and implementation.

3. Decentralization of cost estimation: another advantage considered for budgeting-based formulation based on performance is decentralization created apparently by cost estimation. Cost estimation in performance budgeting is performed based on different actions and programs of the organization, so cost estimation initially is conducted by those people who have direct supervision on the actions, like heads of department and branches of organization. Then cost estimation starts from lower classes of an organization. Thus, administrative hierarchy is revised and changed by higher authorities. It is obvious that this action is useful when heads of lower classes estimate the cost honestly and correctly in such a way that justify their proposed credits regardless of real costs of actions. Under this condition budget formulation based on performance does not obtain desirable results. The first requirement in budget formulation is classification of operation conducted by governmental organization. All similar operations required for implementation of a specific purpose should be assigned to a single agency as a comprehensive plan. Currently, many similar actions with single goal are conducted with different executive organs. Even labor division among offices of an organization is in such a way that do not prevent from repetition and sharing of duties. So limit of duties and accountability of governmental institutions are not specified exactly and it is not possible to determine action costs that cover a single goal. Therefore, basic condition is the implementation of a new theory, cost estimation for each program and action of governmental agencies and for achieving this purpose all similar actions conducted for a single goal should be focused in an organization and avoid a similar action in various organs (Ghahramani,2013). Asgari Azad also refers to some technical requirements of performance budgeting:

1. Setting quantitative and measurable goals in the way of achieving idealistic purposes.
2. Determining different methods for achieving goals like service production, service purchase and so on.
3. Prioritization of goals with respect with limited resources.
4. Classification and definition of programs and activities of organizational units in form of strategic goals and organizational missions.
5. Determining costs of programs and activities according to their quality and geographical place using relevant methods.
6. Formulation of budget bill with a targeted and performance approach based on determination of programs, activities and their cost.
7. Distribution of resources based on these figures in budget laws among smallest units of organization according to quantity, quality and the place of a given activity.

8. Setting up a management agreement among higher managers with managers of operational units for doing activities based on cost.
9. Granting necessary authority to executive managers for codification of processes and conducting administrative, financial and recruitment reforms in achieving determined goals according to cost.
10. Defining regulatory systems and performance assessment aiming at result and product control instead of controlling the process of duty conduction.
11. Allocation of resources according to achieving determined goals in the agreement.
12. Change of cash accounting system to systemic and scientific management.
13. Receiving performance reports and compliance with idealistic and strategic goals and decision making for next programs.
14. Belief of authorities and stakeholders to scientific and systemic management.
15. Establishing an integrated management information system (Asgari Azad, 2007).

legal requirements

Islamic Consultative Assembly in paragraph “z” note 1 of budget law 2002 and paragraph 2 paragraph “B”, note 4 of budget law 2003 and 2004 and article 138 and 144 of the fourth developmental plan obliged the government to transform the current method to a targeted and performance approach based on cost of services.

Conclusion

In establishing performance budgeting system, special attention should be paid to its requirements. Therefore, in some fields it is necessary to reform or adjust performance budgeting. With respect to increased transparency and budgeting effectiveness and its effect on performance improvement in this budgeting in comparison to other methods, universities are seeking efficiency in the results of their programs and are able achieve their annual goals more than ever.

This result corresponds to the results of study conducted by Poor Ali and Kakvan (2014) “*Requirements of Establishing Performance Budgeting (case study: Bbol university of medical science and health services)*” in which it is stressed that “performance-based budgeting focused on program results and using criterion of increased benefits over costs and also calculation of cost is looking for transparency and appropriate information for creating confidence and cooperation. Under such a condition, this budgeting regarding to its activities definitely would result in development and promotion in programs and goals implementation in the best way.

Furthermore, by using criterion of credit costs based on accrual accounting system and also emphasis on program results, this budgeting in universities will increase accountability of financial operation managers of universities to the clients and stakeholders (students) that finally promote importance of accountability from administrative levels to program levels. This matter is also consistent with results of Khodami Poor and Zeinali (2007) study “*budgeting system based on performance and its effect on performance and accountability of government.*” This study stresses “among intended goals for implementing performance budgeting system, goals of accountability is a more powerful basis for its success than budget allocation.” On the other hand, with respect to different research results based on performance like Jordan and Hakkort (2005) “*goals and achievement of implementing performance budgeting*” “that creates the most

direct association between performance information and increased efficiency and quality of services, by using this method in formulation of annual programs and detailed budget, we can promote the performance of universities and contribute to successful exploitation of resources. As a result university managers are able to obtain optimum results using available resources.

Unfortunately, focusing on incremental budgeting, according to inflation or other indicators except scientific criteria of performance estimation cause strengthening bargaining and budget allocation relationship to activities. Under this approach, university managers ignore realities and past performances and without attention to activity level deviate from scientific approaches. Here we can realize essential role of performance-based budgeting in universities and the necessity of its implementing. Transformation process in the budgeting system of universities based on performance primarily require correct understanding of its role and importance. Role and importance of annual budget arrange and practice area and its indispensable role as a basic and significant tool in achieving goals and effectiveness of results is illustrated for managers and financial and budgeting authorities and turns into general belief of authorities to witness development and progress of universities in achieving goals of resistive economy and better implementation of programs and activities and obtaining goals of Iran's 20-year vision plan in 1404.

Suggested solutions

With respect to exploring present study on the role and importance of performance-based budgeting in effectiveness of results and promotion of university performance, some suggestions are offered by the researcher:

1. Since this kind of budgeting is currently implemented in universities, it seems that concurrent with its implementation through financial affairs of universities, performance auditing system (accrual accounting) would be established and conducted to obtain higher goals in annual programs of universities and creates a more powerful tool for accountability of ministry authorities and regulatory agencies. Beyond that it can perform a significant role in prosperity and economic progress.
2. Since some universities are still using incremental budgeting method for formulation of their annual programs and detailed budgeting, realities and past performances and activity levels are ignored. It is suggested that managers use new and scientific methods based on realities like performance budgeting to witness the maximum exploitation of resources and increased effectiveness of results.
3. Implementing and establishing performance budgeting primarily require understanding of its role and importance. Therefore it is suggested that authorities of science ministry explicit role and importance of this budgeting for the managers and stakeholders in universities and encourage them to implement and perform this method.
4. Unfortunately, some universities do not illustrate necessary and full attention to calculation of cost of their programs and activities that is one of the most serious steps in performance budgeting. Therefore, with respect to incorrect outputs from systems, incorrect calculation and finally wrong decision makings, it is proposed that authorities act more exactly regarding cost to benefit from complete goals and results of this useful and effective method.
5. Finally, for institutionalizing protection of national production and using all capacities of country through creating relationship between industry and university, it is suggested to develop fields for

formation economic jihad spirit in industrial managers and university communities to attract them to simple living and prevent them from luxury.

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