

5 ANALYSIS OF CRITICAL CONTROL POINTS OF ALTERNATIVE DECISIONS ON THE CHOICE OF PERFORMANCE BASED BUDGETING SYSTEM: THE ANALYSIS OF THE PRACTICES IN TURKEY'S PUBLIC INSTITUTIONS

Kâmil TÜĞEN*
H. Ahmet AKDENİZ**
Haluk EGELİ***
Mehmet AKSARAYLI****
Ahmet ÖZEN*****

Abstract

Performance-Based Budgeting (PBB) System is one of the latest techniques achieved in the development process of modern budgeting systems. The system basically requires public institutions to prepare budgets in accordance with market-focused administration approach. The system is based on allocating the budget in order to give the most convenient subsidy for the institutional operations to enable the effective use

* Kâmil TÜĞEN is the professor in the Faculty of Economics and Administrative Sciences at Dokuz Eylül University. His primary research interests are budgeting and fiscal planning. Telephone Number:+90 232 420 41 80 (2241), E mail address: kamil.tugen@deu.edu.tr

** H. Ahmet AKDENİZ is the professor in the Faculty of Economics and Administrative Sciences at Dokuz Eylül University. His primary research interest is operations research. Telephone Number:+90 232 420 41 80 (2246), E mail address: ahmet.akdeniz@deu.edu.tr

*** Haluk EGELİ is the assistant professor in the Faculty of Economics and Administrative Sciences at Dokuz Eylül University. His primary research interests budgeting and fiscal planning. Telephone Number:+90 232 420 41 80 (2207), E mail address: haluk.egeli@deu.edu.tr

**** Mehmet AKSARAYLI is the lecturer in the Faculty of Economics and Administrative Sciences at Dokuz Eylül University. His primary research interest is operations research. Telephone Number:+90 232 420 41 80 (2289), E mail address: mehmet.aksarayli@deu.edu.tr

***** Ahmet ÖZEN is the research assistant in the Faculty of Economics and Administrative Sciences at Dokuz Eylül University. His primary research interests budgeting and fiscal planning. Telephone Number:+90 232 420 41 80 (2229), E mail address: ahmet.ozen@deu.edu.tr

Analysis of Critical Control Points

of resources. Institutional activities are assessed according to pre-determined performance criteria and the way to reach the target performance level is called forth.

In this study, first, critical control points are determined to enable the state to reach PBB by providing transition between budgeting systems. After critical control points are formed, a diagram is drawn to show the effectiveness of PBB and the factors that may affect the processing of the system negatively or positively are explained. After that, operational levels of institutions according to the critical control points are obtained as the result of a situational analysis of PBB in various public institutions in Turkey. Moreover, public institutions in the study are classified from a functional point of view and comparative analyses are made according to operational levels. Regarding the result of the analyses some suggestions on adapting the PBB systems to the public institutions are made. We concluded that the system cannot be applied effectively without completing all the steps towards PBB.

Keywords: Budgeting, Strategic Planning, Performance Evaluation, Performance Criterion, Performance-based Budgeting, Optimization

Jel Classification: H11, H61, C44

1. Introduction

Budgeting systems are generally divided into two sections as modern and traditional budgeting systems. Today, Performance Based Budgeting System, which is a modern budgeting system for reforming public administration, has come to the fore. The initial applications of the system started in developed countries such as the USA, Australia, New Zealand and United Kingdom. Following these, some attempts towards Performance Based Budgeting can be seen in various European countries. In developing countries, studies attributed to the system are maintained with support of various developed countries and international institutions such as World Bank and IMF. The system is widely used throughout the world due to some reasons such as increasing the quality of public services, providing with financial transparency, allowing the administrators to account for their applications and raising the institutional performances to top levels. Thus, the system is seen as an instrument that informs the society about the performance of the government (O. Roark, 2001).

USA, where the first applications of modern budgeting systems were carried out, comes to the fore in terms of PBB. The first legal regulation at federal level in the country started in Hawaii after the Executive Budget Act was enacted on year 1970 (Melkers and Willoughby, 1998). Furthermore, the study named "Reinventing Government" by David Osborne and Ted Gaebler accelerated the attempts to apply the system at federal level. In the following year, "The Government Performance and Results Act" was enacted and the country adapted the system at federal level. Presently, this system has a very common practicing ground. There is also a tendency to restrict it to comfort to each country's unique conditions. However, there isn't any standard model that is agreed on technically by all countries.

PBB system may effectively perform only if all necessary components and factors are taken into consideration. Therefore, it is clear that the system will not rationally

operate without fully completing the required background. The following criteria should be noticed in order to ensure the expected efficiency of the system:

- The need for a simultaneous information network,
- Adequate personnel who have performance culture,
- A public management insight focused on performance,
- A stable economic and political structure,
- An expectation quality level of services at the society,
- A performance based waging system,
- Political decision makers' trust in the system.

The criteria mentioned above have a complementary role for the processing of the system and they are seen as obligatory to measure the effectiveness of the system. Thus, while reforming the existing budgeting system for the sake of PBB system, the criteria above should be taken into consideration simultaneously. In this study, a "PBB system effectiveness diagram", which has taken all these criteria in to consideration, is developed in order to optimize the effectiveness of the system.

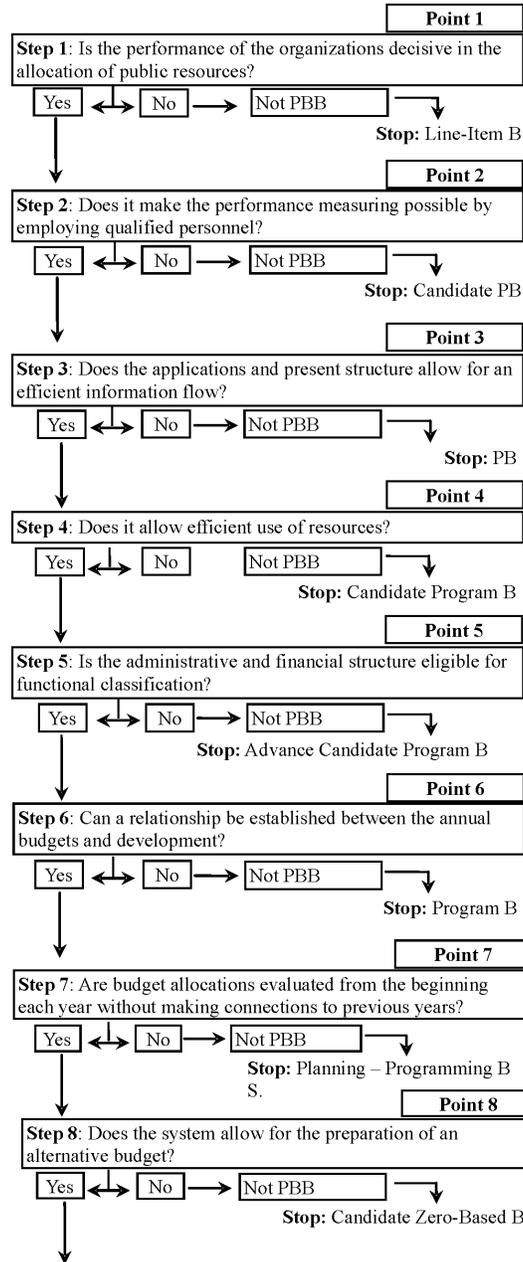
2. Analysis of Critical Control Points in Selection of the Budgeting System

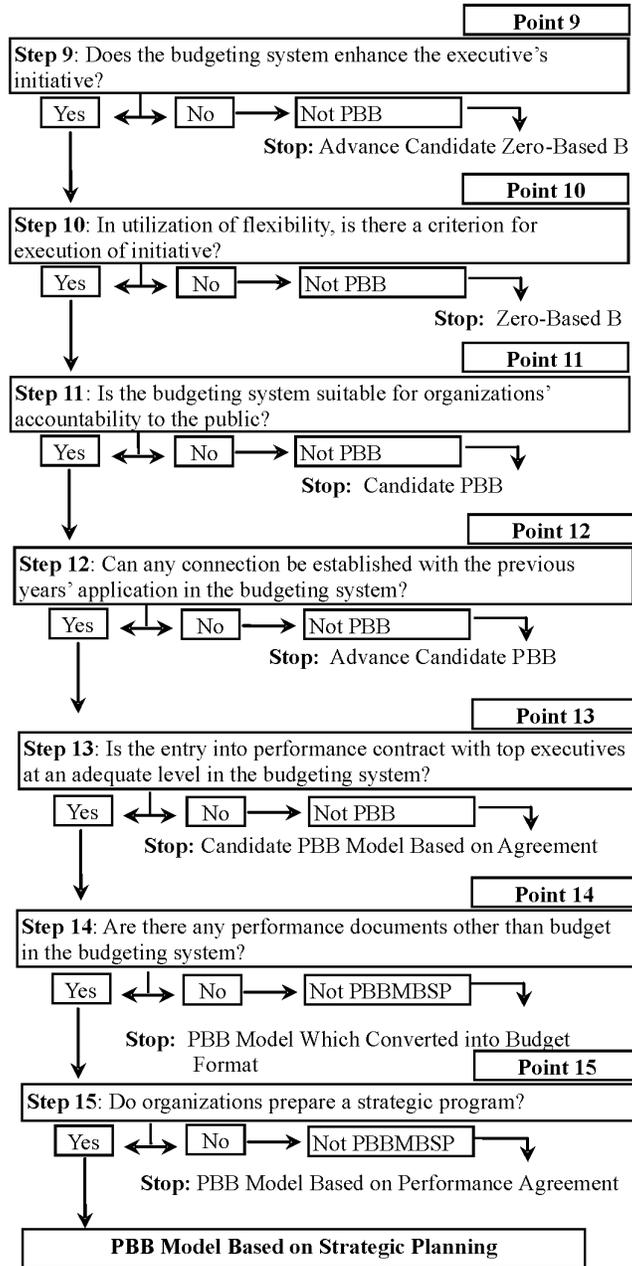
In this part of the study, the required elements for the processing of the PBB system are given by developing a list of critical control points. In the analysis, proceeding towards PBB is clarified through fifteen steps, as shown in Figure 1.

The first step: "Is the performance of the organizations decisive in the allocation of public resources?"

The first step is whether "performance" is accepted as a basic criterion in allocation of public resources. This point is the most evident difference between modern and traditional budget systems. Since the traditional budget system is input based, it does not take performance into consideration in the allocation of resources. In contrast to traditional systems, modern budget systems are output based and take performance into consideration as one of the basic elements. If a modern budget system sees the performance as a determining factor in the allocation of budget resources, the system should be designed according to this objective. Nevertheless, some further steps are required to distinguish the systems, although performance is a common characteristic of modern budgeting systems.

Critical Control Points of Choosing the Alternative Budgeting System





Analysis of Critical Control Points

PB: Performance Budgeting

PBB: Performance Based Budgeting

SPBPBM: Performance Based Budgeting Model Based on Strategic Planning

B: Budgeting

The second step: Does it make the performance measuring possible by employing qualified personnel?

The second step is to assess whether qualified staff is employed in public institutions with regard to performance measurements. In a modern budgeting system, performance should be determinant in allocation of public resources, but it is not a sufficient criteria. If qualified staff is not employed to fulfill such a goal, it is difficult to succeed even with the help of any kind of legal regulation. Therefore, a performance based budgeting system in which qualified staff is not employed can not go beyond being "a candidate performance based budgeting system."

The third step: Does the applications and present structure allow for an efficient information flow?

In the third step, the quality of existing information network is inquired to apply the budgeting system effectively. That is, although legal regulations and staff quality are sufficient, a budgeting system which is lacking information network can only be defined as "performance budgeting system".

The fourth step: Does it allow efficient use of resources?

The fourth step inquires whether it is possible to use resources effectively in the budgeting system. Focusing on the performance is not enough to use qualified staff and information network resources effectively. Also, the system requires classifying public expenditures according to the main service groups, in other words according to functions. A budget system which is lacking functional classification, can be defined as "a candidate program budgeting system."

The fifth step: Is the administrative and financial structure eligible for functional classification?

The fifth step inquires whether the institutions are classified in accordance with their service fields to increase their administrative and financial performances. The functional classification of budgeting system is not enough to use resources effectively. In addition, administrative and financial structure should be constructed in this way. Consequently, such structuring will enable that resources are going to be utilized in the same direction of objective by preventing the inter-service transpass. Otherwise, the existing budgeting system will remain "an advance candidate program budgeting system."

The sixth step: Can a relationship be established between the annual budgets and development?

The sixth step includes the inquiry about the relation between annual budgets and development plans in a budgeting system with a functional classification. Making the budget gain a long term perspective is only possible with planning. In this respect, a budgeting system in which a budget-planning relationship is not established but is based on functional classification can be identified as a "program budgeting system."

The seventh step: Are budget allocations evaluated from the beginning each year without making connections to previous years?

The seventh step is to determine if budget subsidies are allocated by considering previous years' budget achievements. A budgeting system which does not consider the budget achievements of the previous years can be described as a micro-budgeting approach. As a matter of fact, budgeting approach regarding long term planning makes both establishing the relation of budgeting–planning and achieving positive results of budgeting policies in the direction of macro goals possible. Such a budgeting system may be described as “Planning-Programming Budgeting System.”

The eighth step: Does the system allow for the preparation of an alternative budget?

In the eighth step if alternative budgets are prepared in the budgeting system is required. If a budgeting system does not let alternative budgets be prepared, it can be defined as “a candidate zero based budgeting system.”

The ninth step: Does the budgeting system enhance the executive's initiative?

The ninth step inquires if flexibility is provided for the administrators to prepare alternative budgets. If an administrator does not have a broadened initiative while preparing alternative budget, such a budgeting system can be described as “an advanced candidate zero based budgeting system.”

The tenth step: In utilization of flexibility, is there a criterion for execution of initiative?

The tenth step inquires the convenience of budget applications to transparency and accountability criteria. A system which does not have modern characteristics such as transparency and accountability but provides sufficient flexibility to public administrators in preparing budgets can be defined as “zero based budgeting system.”

The eleventh step: Is the budgeting system suitable for organizations' accountability to the public?

The eleventh step inquires if a budgeting system is suitable for institutions accountability to the public. If the existing applications are insufficient with respect to accountability, such a system is described as “a candidate performance based budgeting system.”

The twelfth step: Can any connection be established with the previous years' application in the budgeting system?

The twelfth step is about determining if the budget applications of the previous year are the projections of coming years. If budgeting policies are determined without taking the previous years' practice into consideration, then the existing system can be defined as an “advance candidate performance based budgeting system.”

The thirteenth step: Is the entry into performance contract with top executives at an adequate level in the budgeting system?

The thirteenth step is to inquire the sufficiency of signing performance contracts with high ranking administrators. The budget system only based on performance contracts is “a candidate contract based performance based budgeting model.”

The fourteenth step: Are there any performance documents other than budget in the budgeting system?

Analysis of Critical Control Points

The fourteenth step is to enquire if performance documents that are independent of the budget are prepared. If there is no such a document specifying performance other than the budget, a system may be deemed as “a performance based budgeting model, which converted into budget format.”

The fifteenth step: Do organizations prepare a strategic program?

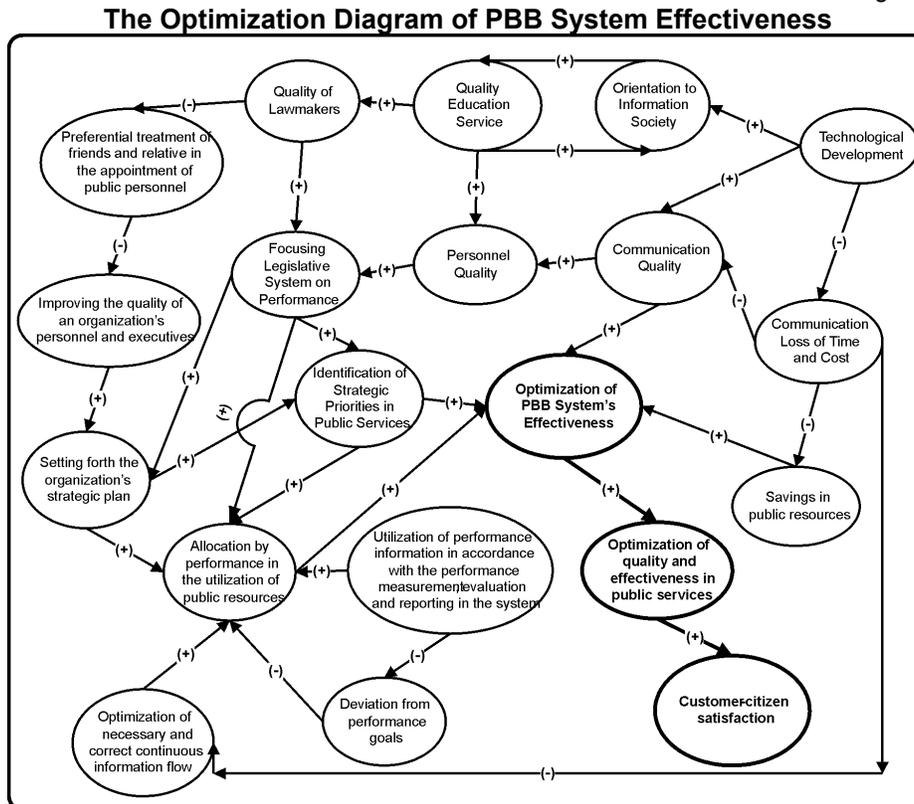
The fifteenth step inquires whether or not institutions prepare a strategic plan. If any institution is not preparing a strategic plan, then it can be assumed to perform a “performance based budgeting model based on performance agreement.” If an institution is preparing a budget within a strategic plan, such a system may be specified as “P. B. B. Model Based on Strategic Planning.”

3. The Optimization of PBB System Effectiveness

The analysis of critical control points shows the necessary steps to be taken to operate the system. Besides that, determining the factors which affect the system's efficiency positively or negatively also shows importance. Negative or positive factors about effective use of the system are given and proposed relations between them are shown in Figure 2.

According to the diagram, technological improvement is the leading factor which may affect the effectiveness of the budgeting system in a positive way. Use of internet and computerization, which is common throughout the world, is a very important phenomenon in collecting information and in its diversification. Therefore, it is possible to say that there is a direct relationship between technological improvement and information society. The improvement of information technologies improves the quality of communication together with transition to the information society. In addition, wide usage of information forms the required background for high quality education. The increased quality of education shall improve the quality of the lawmakers as well as that of the civil servants. Performance based wage policy should also be used to support staff quality. Lawmakers highly equipped with information will also enable them to legislate acts on performance based budgeting system. This will prevent nepotism in assigning and employing the staff, as well. As a result, the institutions will have the opportunity to base their strategic plans on a more rational ground. On the other hand, strategic plans will lead to allocations according to performances both in determining strategic priorities and in the use of public sources. This will also cause regular information flow as a result of technological improvement and will lead to the allocation of public sources according to performances. On the contrary, the feedback of performance information (reassessment of the obtained performance data in the system) will affect the allocation of resources according to performance positively by decreasing the possibility of deviation from performance objectives. The increase in the quality of the public staff, innovations in communication, determining strategic priorities in public services and allocation of public sources according to performance will totally support the effectiveness of performance based budgeting system.

Figure 2



“-“: represents that the incident at the initial circle of the arrow adversely affects the incident at the point where it ends;

“+“: represents that the incident at the initial circle of the arrow directly affects the incident at the point where it ends.

However, an effective budgeting system will enable the citizens to get the ultimate expected satisfaction from public services, which is the final objective, by providing optimization in the supply of public services.

4. The Analysis of Budgeting Practices of Public Institutions in Turkey according to Critical Control Points

Aim of the Study

The objective of the analysis is to determine the level of adaptability of governmental institutions to PBB. Thus, the steps of critical control points which provide transition to the new budgeting system are inquired.

Analysis of Critical Control Points

Scope of the Study

In this study, practices of different public institutions towards strategic planning based PBS were analyzed. In this respect, 92 experts, who work for 25 public institutions, were interviewed. As given in Table 1, the distribution of experts was: 63 managers, 24 technical staff and 5 employees.

The institutions included a wide range of health, education, local administration, energy, transportation, communication and banking sectors. The distribution of the institutions in the study is shown in Table 1.

Table 1

The Range of Participants

Participants			Institutions		
	Frequency	%		Frequency	%
Manager	63	68,5	Health	4	16
Technical Staff	24	26,1	Education	8	32
Employee	5	5,4	Audit	7	28
Total	92	100	Local Administration	2	8
			Other	4	16
			Total	25	100

Since Turkey has a unitary structure, the current budgeting system has similar features for all governmental institutions. Therefore, the so called analysis reflects the functioning level of many governmental institutions with regard to the budgeting system.

Limitations of the Study

The primary limitation of the study is the need of experienced employees who have technical knowledge on budgetary practices. Thus, only high level managers, expert personnel and senior employee of budget departments of 25 public institutions were interviewed between the 1st of January and the 30th of March, 2007.

Collection and Analysis of Data

We first got authorization from the managements of the institutions and interviewed the employees. In the interviews, we used a questionnaire form and asked questions about the budgetary practices of the institution and the steps they carry out towards critical control points. We tried to determine the budget system they actually use and the steps they need to take in order to change to strategic planning based PBS.

Data is analyzed by SPSS13 (Statistical Package for Social Sciences) and critical control points are evaluated and interpreted in a custom-made summary table in MSEXcel2003.

Compatibility Analysis of Employee Evaluations

In this respect, since some of the employees were not well informed on the functioning mechanism of the new budgeting system and they have given contradictory answers to some questions, more than one executive were interviewed. In these circumstances, in order to determine whether the executives and the employees have given statistically compatible answers a *t* test was done and the test results are given in Table 2.

Table 2

The Statistical Consistency Test of Executives and Technical Staff

	T	Sig. (2-Tailed)
Step1	-.184	.854
Step2	.515	.608
Step3	.139	.890
Step4	-.728	.469
Step5	.609	.544
Step6	.147	.883
Step7	-2.313 [*]	.025
Step8	-2.137 [*]	.036
Step9	-.541	.590
Step10	-.691	.492
Step11	-1.021	.310
Step12	.213	.831
Step13	-.387	.700
Step14	2.478 [*]	.015
Step15	1.530	.130

In Table 2, together with *t* test the significance statistics which show consistency between executives and technical staff are given. It can be claimed that there is a statistically significant difference between the answers given by the groups if the significance value is lower than 0.05. Hence, it is observed that the answers of the executives and the technical staff to steps 7, 8 and 14 were statistically different. In view of this statistical difference, the employees at different levels were evaluated independently in order to spot the functioning mechanism of the new system. The evaluation was done by taking the mode of the answers of the senior executives and workers into account.

In this context, employees were asked questions about the practice of steps on critical control points. The evaluation of responses was conducted in three different points of view:

- i) When the knowledge level and the authority of the employee were considered, we evaluated only upper managers' responses.
- ii) When different opinions of all employees on the institution's practices were considered, we evaluated at least one employee.
- iii) When most common answers were considered, we evaluated the statistical mode of all responses.

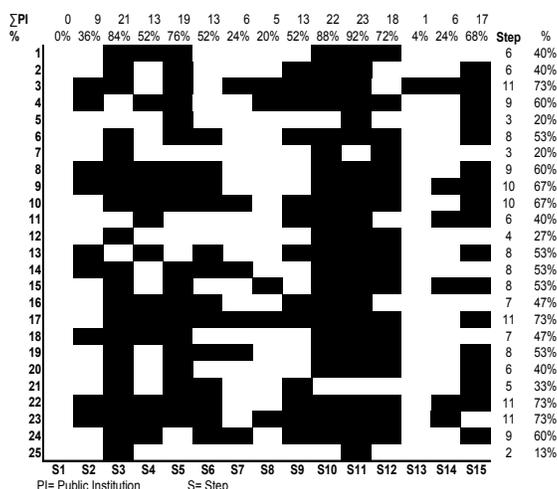
5. A Method for Analyzing Critical Control Points

In this study, we propose a new method to analyze institutional practices towards critical control points. In this method, the institutions and their application steps are shown on the same graph with their related statistics. In Figures 3, 4 and 5 the vertical axes indicate the institutions and the horizontal axes indicate the steps of critical control points. In Figures 6 and 7 the vertical axes indicate functions and horizontal axes indicate the steps of critical control points. The dark areas in Figures 3 and 4 show that related critical control steps are fulfilled in the institutions; on the contrary, the dark areas in Figures 5, 6 and 7 show that they are not fulfilled. As a consequence, in the given figures the proximity level of the institutions to PBB is determined.

In Figure 3, the evaluation done by the executives who have the highest ranks in their institutions are determined on the basis of critical control points of PBB.

Figure 3

The steps taken by the institutions for the senior staff



As one may see in Figure 3, the first step of the critical control point analysis cannot be fulfilled by any of the institutions. In addition, steps 13, 7, 8, and 14 are in the lowest level of fulfillment. On the other hand, one may see clearly that steps 11, 10, 3 and 5 have the highest level of fulfillment. Besides, in Figure 3, how many steps are fulfilled by each institution according to critical control points analysis are shown on the right hand side together with their percentages. If the percentages of critical control point steps fulfillment are taken into consideration, one may see that the institution number 25 has the lowest level of 13 percent; in contrast to this, the institutions numbers 3, 17, 22 and 23 have highest level of 73 percent. To sum up, it can be concluded that activities carried out in some institutions may differ from the others in certain levels. Although the fulfillment levels of institutions are generally

around 50 percent, facing very low levels of fulfillment such as 13 percent and 20 percent in some institutions might lead us to such a deduction that the senior executives in the related institutions cannot be completely integrated into the functioning mechanisms of the system.

Table 3

Defined statistics computed by the institutions for the senior staff

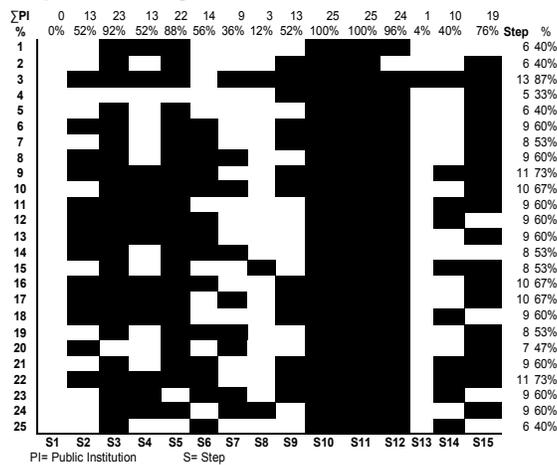
	Steps	Institutions
Mean	7.44	12.4
Standard Error	0.53	1.96
Medium	8	13
Standard Deviation	2.65	7.60
Max.	2	0
Min.	11	23
Count	25	15
Confidence Level (95.0%)	1.09	4.21

In Table 3, basic statistics about the steps fulfilled by the institutions and their numbers are provided. In view of these statistics, one may see that the institutions fulfill at least two, at most eleven steps and they fulfill 7.44 steps in average. In addition, if any step is taken into consideration, one may see that an average number of 12.4 (49.6) institutions fulfill the related step.

Since the executives had different evaluations about critical control points in the interviews, Figure 4 is provided by taking into consideration the mode of the evaluations done by the senior executives.

Figure 4

Steps taken by the institutions to the mode



As Figure 4 shows, there are some differences according to mode in the tests of the data of the senior executives. However, if the least fulfilled steps and the most fulfilled

Analysis of Critical Control Points

ones are taken into consideration, there is some parallelism. According to Figure 4, in the institutions steps 1, 13, 8, 7 and 14 are the least fulfilled steps; on the other hand steps 11, 10, 12, 3 and 5 are the most fulfilled ones.

In Table 4, some basic statistics are provided according to the mode of the evaluations by the executives. In these circumstances, it is clear that at least 5, at most 23 steps and in average 8.56 steps were fulfilled by the institutions. Moreover, if any step is taken into consideration, it is obvious that in an average 14.27 (57.1 percent) institutions have fulfilled that step.

Table 4

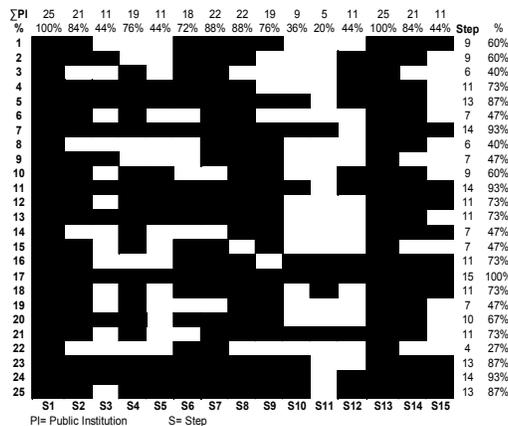
Defined statistics computed by the institutions to the mode

	Steps	Institutions
Mean	8.56	14.27
Standard Error	0.37	2.23
Medium	9	13
Standard Deviation	1.86	8.62
Max.	5	0
Min.	13	25
Count	25	15
Confidence Level (95.0%)	0.76	4.78

Figure 5, which indicates the condition that at least one negative answer was given to the related questions in each institution, was drawn in order to consider the analysis from a different point of view. In other words, Figure 5 is provided by taking into consideration at least one executive who answered that the related step was not fulfilled in his institution.

Figure 5

Steps not taken by the institutions for at least one executive



As Figure 5 shows, steps 1, 13, 7, 8 and 14 are the steps which were fulfilled the least. Nevertheless, steps 11, 10, 12, 3 and 5 are the ones which were fulfilled the most. When Figures 3, 4 and 5 are taken into consideration together it appears that the executives have given similar answers about the least and the most fulfilled steps.

In Table 5 basic statistics which are about the steps that were not fulfilled by the institutions according to at least one executive are provided. Thus, one may see that the institutions have not fulfilled at least 4, at most 15 and in average 10 steps. Besides, when any given step is taken into consideration it may be noticed that an average number of 16.7 (66.7) institutions have not fulfilled the related step.

Table 5

Defined statistics not computed by the institutions for at least one executive

	Steps	Institutions
Mean	10	16.7
Standard Error	0.61	1.65
Medium	11	19
Standard Deviation	3.14	6.38
Max.	4	5
Min.	15	25
Count	25	15
Confidence Level (95.0%)		3.53

When Tables 3, 4 and 5 are examined, the reliability scale values of steps are calculated as 1.09; 0.76; 1.26, and the reliability scale values of the institutions are calculated as 4.21; 4.78; 3.53. The reliability scale values of steps indicate that the variety of the number of the steps fulfilled by the institutions is relatively small. In other words, the number of steps fulfilled by the institutions is almost similar for each of them. The reliability scale values of the institutions indicate that there is more variety as regards the number of the institutions which have fulfilled the related step; that is to say, there are differences in the number of steps fulfilled by the institutions. Therefore, it can be claimed that this situation occurs as the institutions have different functional structures. On account of the fact that the institutions have different functional structures the institutions are examined by being divided into groups according to their functional structures. The institutions are examined under three groups, such as Education, Health and Audit institutions. In the analysis of the steps which were not able to be fulfilled by the institutions according to senior staff; if more than half of the institutions which have the same function could not fulfill the given step, the mentioned step is shown as the dark area in the graph presented in Figure 6 by being accepted as a step which could not be fulfilled and should be regarded as a step which has to be taken into consideration in general planning.

When Figure 6 is analyzed, one may see that health and education institutions were behind the audit institutions in adapting themselves to the system. The basic reason for the audit institutions being ahead of other institutions is that - unlike spending institutions - these institutions do not have an independent budget and they are relatively financial source providing institutions. Since the audit institutions are financially source providing institutions, they seem closer to the objective of using sources, which form the core of the system, more effectively. In addition, these institutions do not maintain as many spending activities as the other spending

Analysis of Critical Control Points

institutions. For that reason, the audit institutions seem to be better at using sources effectively.

Figure 6

The steps not taken by the institutions which have functional structures for seniors



In Figure 7, the steps that could not be fulfilled by the institutions are given by being evaluated according to mode.

Figure 7

The steps not taken by the institutions which have functional structures to mode



In Figure 7, the mode values of answers, which are the institutions not able to fulfill the critical control points, are taken. When Figure 7 is analyzed, one may observe that together with the similarities there are differences between the answers which are shown in Figure 6 with mode and which are given by the senior executives that the related step was not fulfilled. For instance, the rate of the answers of the senior executives in the health sector was higher according to mode. The so-called answers are negative that is the related step was not fulfilled. However, in Figure 7 one may see that for education and audit institutions there is more parallelism between senior executives and mode values. In general, we have found that the evaluations of the managers on current practices are consistent; however their evaluations on practices about the transition process have some differences.

6. Results

The algorithm of the systematic structure of critical control points aims at the choice of an alternative budget system in the public sector. The critical control points which are formed according to this system structure are based on the fact of which factors will be taken into consideration by the public sector while choosing the budgeting system. As the algorithm of the systematic structure of the critical control points aims at the selection of an alternative budgeting system in the public sector, it is based on the principle of determining what elements will be taken into consideration in the selection of the critical control points established by this system structure and the budgeting system of the public sector. Within this framework, an algorithm is established showing how the selection of an alternative budgeting system in the public sector will

be identified by the structural conditions of each country. Starting from here, the findings from the flow chart of the critical control systematic structure as given in Figure 1 are as follows:

- It is determined what kind of a budget technique the public sector should employ and by what conditions.
- The necessity was determined by each country's established infrastructure suited to its budgeting system in the direction of its socio-economic goals and being accordingly in activities to the planned goals during a certain period of time is determined.
- It is revealed that it is not rational for a country to apply a budgeting system at a more advanced level before establishing the required infrastructure and completing those stages which shall take the system to success.
- It is shown what steps each country must take according to the existing criteria in order to achieve an ideal budgeting system.

Several findings are obtained from Figure 2 where the schematic structure which ensures the effectiveness of the performance-based budgeting system established in accordance with the analysis results of the critical control points. The findings obtained from the schematic structure established in Figure 2 in question are as follows:

- It is revealed that one of the most important factors determining the effectiveness of the system is those feedbacks based upon technological development.
- Providing regular information flows based upon the development of technology will directly support the training of the qualified personnel needed by the public sector.
- Employment of qualified personnel and legislation made by rational decision-makers will positively support the effectiveness of the performance-based budgeting.
- Depending on the rise in the quality of the education, the quality of the lawmakers will also rise and this will prevent nepotism in terms of the personnel to be employed, thus allowing for the identification of the public services in accordance with strategic priorities within the framework of the optimization of strategic plans.

By analyzing the critical control points in the explained model the following results about the adaptation of current budgeting system in Turkey to performance based budgeting system are reached:

- The annual allocations of allowances to public institutions are assigned without considering their performance.
- Performance contracts in public institutions with senior executives do not exist.
- In some institutions a variety of other documents to measure the performance are used. (E.g. the daily number of patients examined by a doctor, or the daily number of operations per employee in a bank, etc.)

Analysis of Critical Control Points

- In most public institution the allocations of the following year are determined in accordance with allocations of the previous year. Furthermore, forming an alternative budget according to actual circumstances is out of question.
- The budget applications in public institutions are not done in accordance with the regulations as regards to transparency and accountability for to the public.
- Technical and physical substructure in public institutions is sufficient to provide an effective information flow.
- Generally, the activities conforming to financial and administrative structure, carried out by public institutions are in harmony with their service fields.
- According to functional grouping, as regards to either senior executives or mode, in any given function the performance document does not exist. Although such documents exist in an institution involved in a function, one may see that such documents are not used in the system when the general average of the function is taken into consideration.
- According to functional grouping, in all groups the budget allocations are prepared in relation with the allocations of the previous year and alternative budgets for likely conditions are not applied to. Especially, Turkey's applications of mid-term financial plans and parallel to this having a multi-year budgeting process because of financial reforms do not allow such an application.
- As we mentioned before, according to financial grouping also, allocations for public institutions are assigned without considering their performance.
- In the institutions which are involved in auditing function, according to senior executive, qualified staff are not employed in his institution. On the contrary, when the mode of this function is considered, such a result does not come true. In fact, the most interesting point is that although the senior executives have answered that they have used their sources in their institutions which are involved in this function, the mode shows the opposite.

7. Conclusion

In order to obtain the expected effectiveness from a budgeting system, it is required to plan each necessary step by establishing an interrelation between the steps. A flawless planning of these steps is an indication of to what extent a country's expectations of a system are satisfied.

To the result of the analysis performed for Turkey, it appears that the achievable goals for transparency and accountability criterions were not achieved. Moreover, some inadequacy exists since Turkey is still in a transition period to the system. Within this context, Turkey is trying to have new legal arrangements for practicing the system. Nonetheless, due to lack of deployment of performance culture and desired level of education programs in this respect may also cause to concern of qualified staff. Eventually, this may establish an obstacle to make the system more effective. As a consequence, the effectiveness of a budgeting system may only be provided by the establishment of the steps identified by the critical control points and forming the combinations of those factors given in Figure 2 and reflecting those into applications.

References

- Andrews, Matthew. 2004. Authority, Acceptance, Ability and Performance-Based Budgeting Reforms. *The International Journal of Public Sector Management* 17(4):332-344.
- Andrews, Matthew. 2006. Beyond Best Practice And Basics First In Adopting Performance Budgeting Reform. *Public Administration And Development* 2: 147-161.
- Andrews, Matthew, and Herb Hill. 2003. The Impact Of Traditional Budgeting Systems On The Effectiveness Of Performance-Based Budgeting: A Different Viewpoint On Recent Findings. *International Journal Of Public Administration* 26(2):135-155.
- Behn, Robert D. 2003. Why Measure Performance? Different Purposes Require Different Measures. *Public Administration Review* 63(5): 586-606.
- Berman, Evan, and Xiaohu Wang. 2000. Performance Measurement in Us Counties: Capacity For Reform. *Public Administration Review* 60(5): 409-420
- Blondal, Jon R, and Jens Kromann Kristensen. 2002. Budgeting In Netherlands. *OECD Journal On Budgeting* 1(3):43-80.
- Blondal, Jon R. 2003. Budget Reform In OECD Member Countries: Common Trends. *OECD Journal On Budgeting* 2(4):7-25.
- Blondal, Jon R. 2001. Budgeting In Sweden. *OECD Journal On Budgeting* 1(1):27-57.
- Chevauchez, Benoit. 2002. Government Budgeting And Accounting Reforms In France. Models Of Public Budgeting And Accounting Reform. *OECD Journal On Budgeting* 2(1):186-218.
- Cothran, Dan A. 2001. Entrepreneurial Budgeting: An Emerging Reform?. *Performance-Based Budgeting*, edited by Gerald J Miller, W Bartley Hildreh, and Jack Rabin, 147-167. CO:Wsetview Press.
- Curristine, Teresa. 2005. Government Performance: Lessons and Challenges. *OECD Journal on Budgeting* 5(1):127-151.
- Ellis, Kevin, and Stephen Mitchell. 2002. Outcome-Focused Management In The United Kingdom. *OECD Journal On Budgeting* 1(4):106-124.
- Haq, M Shamsul. 2004. Governance and Bureaucracy In Singapore: Contemporary Reforms and Implications. *International Political Science Review* 25(2):227-240.
- Hill, Herb, and Matthew Andrews. 2005. Reforming Budget Ritual and Budget Practice: The Case of Performance Management Implementation in Virginia. *International Journal Of Public Administration* 28:255-272.
- Kristensen, Jens Kroman, Walter S Groszy, and Bernd Buhler. 2002. Outcome-Focused Management and Budgeting. *OECD Journal On Budgeting* 1(4):7-35.
- Luder, Klaus. 2002. Government Budgeting And Accounting Reform In Germany. *OECD Journal On Budgeting* 2(1):225-242.
- Matheson, Alex, and Hae Sang Kwon. 2003. Public Sector Modernisation: A New Agenda. *OECD Journal On Budgeting* 3(1):7-25.
- Melkers, Julia E, and Katherine G Willoughby. 1998. The State Of The States: Performance-Based Budgeting Requirements In 47 Out Of 50. *Public Administration Review* 58(1):66-73.
- Melkers, Julia E, and Katherine G Willoughby. 2001. Budgeters' Views Of State Performance- Budgeting Systems: Distinctions Across Branches. *Public Administration Review* 61(1):54-64.

Analysis of Critical Control Points

- O'roark, J Brian. 2001. Performance-Based Budgeting In State and Federal Fiscal Performance: An Empirical Analysis. *George Mason University*.
- Osborne, David -Ted Gaebler. 2002. *Reinventing Government*, MA:Addison-Wesley Publications.
- Schick, Allen. 1990. Budgeting For Results: Recent Developments in Five Industrialized Countries. *Public Administration Review* 50(1):26-34.
- Schick, Allen. 1978. The Road from ZBB. *Public Administration Review* 38(2):177-180.