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ZERO BASE BUDGETING AS A PLATFORM FOR ACHIEVING THE OPTIMAL PLANNING PROCESS

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Abstract  
As a result of dynamic and unstable environment there is an increasing need for effective planning and implementation of new and improved planning tools. In this paper we discuss particular planning management techniques; planning, programming and budgeting (PPB), management by objectives (MBO) and Zero base budgeting (ZBB). Objective of this study is to point out that no matter which tool or method of planning we use, especially in terms of optimization and effective cost management, ZBB represents the platform. It is one of the key methods to use when starting the planning process. ZBB as zero base planning method enables company to reach valuable insights about costs and actual needs. Therefore, it is extremely important for an organization to maintain market position by gathering information about actual costs of activities and benefits gained from those costs. This is enabled by using the ZBB method.

Key Words: budget, expenses, planning, methods

Topic Groups: Business strategy, Change management and organizational development, Organization and financing
INTRODUCTION

Modern economic environment sets new challenges in private and public sectors. Subjects in economy facing with shortage of liquid assets and increasing costs and debts. In order to respond on variable environment in which they operate, organizations need to think how to realize planned investments with scarce resources but also how to utilize internal reserves especially in terms of increasing efficiency.

In early 20th century America was in deep economic crisis and began to turn in a new way of thinking of finance and planning in private and public sector. In managerial circles evolved attitude that budget planning in public sector should be approached from managerial aspect. During the years were developed methods of budget planning in function to increase efficiency, which is characteristic of private sector compared to effectiveness characteristic for public sector. Objective of this article is to make comparative analysis of the management planning techniques considering modern and traditional planning approach and its main representatives as possibility of their integration in function of better business activities of the organization. Key start for every planning process is to define where we are and where are we going with realization of future objectives of the organization. Therefore research for this article, which is carried out by searching of secondary sources, analysis and synthesis sets a hypothesis as follows:

- H: Zero base budgeting (ZBB) as a platform in a combination with some of the modern methods enables optimal planning process.

ZBB is good platform for start in planning process because it provides cost overview and its structure through the program and gives managers insight into the actual situation of the organization, its costs and needs.

THE TRADITIONAL PLANNING METHOD

The traditional planning method includes revenue and expenditure planning based on previous year budget realization. Greater emphasis is placed on the expenditure side rather than the revenue planning. Last year’s results are interpolated linearly into the next year’s budget that is into the next three years. This method assumes that all incurred expenses that where realized last year are justified and that same level of expenses would be justified in a new planning period, that is, the new expenses must be higher or lower in relation to the observed year or period. In practise, the budget is drafted each year the same way, which mainly includes greater amount for salaries, based on the law, collective agreements and inflation, as well as possible new projects or programs. According to Kaplan and Norton (2001), the traditional approach to budgeting functions well in activities where there is a clearly defined link between input and output, so that the utilisation of resources varies proportionally with the change in volume of the final products or services (Antić, Novičević: 2011). According to Cheek, the traditional method of planning consisted of planning based on previous execution and as such is enhanced by a certain percentage. This method offers simplicity of planning, but not the efficiency and expediency. Programs of past periods and last year’s programs are perhaps no longer useful, but for the sake of traditional planning methods are extrapolated into next year (Cheek 1979: 2). The traditional planning method can be criticised for not making an in-depth analysis of the budget, which should by way off cost benefit analysis provide answers to what activities caused the increase or decrease of the budget, as well as what benefits have resulted from it. This would lead to a better base for next year’s planning. When it comes to cost cutting in traditional budgets, it is done in
percentage terms without analysing the cause of increase in costs off a particular program or activity. This way of planning does not encourage improvement. On the contrary, it encourages sluggishness and creates a habit of planning without thinking about the entire strategy of development either at the macro or at the micro level. This is especially visible in the public sector, which has to plan in accordance with given directions from higher authorities or the government. In the situation when they have to make cost cuts, they begin with percent reduction of the planned amount, most often linear, where the key is to satisfy the given limit. As such, there is no analysis of costs being undertaken, the consequences of those reductions, that is the benefits of reducing those costs.

THE OVERVIEW OF MANAGEMENT TECHNIQUES THAT PRECEDED ZERO BASE BUDGETING METHOD

Cheek (Cheek, 1979; 8-11) lists several methods of planning, which preceded the method of zero planning, that is, they have features of zero based budgeting. The first method of capital budgeting is the one according to which organisations developed capital programs and evaluated expenses of each individual capital program. Every program contained the total amount of expenses, used to improve productivity, increase of sales or reduction of costs and other alternatives. Besides this, other analytical techniques of project evaluation were used such as return on investment, cash flow, breakeven point, present net worth and others. If the same measures were used in the analysis of each program then it wouldn’t have been difficult to rank them and choose the most promising ones. Cheek argues that in reality this is nothing more than the concept of planning from scratch, which has been modified in order to fit a specific area. He also mentions the PPB method of planning, programming and budgeting. Many say that the origin of zero base planning is in the planning, programming and budgeting method which was developed in the early sixties of the 20th century in the US Defence Department and later perfected when implemented in NASA’s space program development. The characteristics of this method are planning expenses by programs, that is, classifying of expenses according to output in accordance with the defined goal and not according to functions such as in traditional planning. In other words, the expense was defined according to output, which is closely tied to goals, and it was not tied to the input, which is linked to functions. Moreover, program expenses where projected over its life rather then only one fiscal year. The assumption for that type of planning is to avoid potential surprises in future budgets as well as exceeding budget limits. All these programs have been subjected to profitability analysis (cost effectiveness), which focuses on increasing the value of the program and/or reducing the source of funds required for program realisation. Cheek considered that the PPB method was a more program oriented long term technique of planning, that demanded cost justification of several alternative approaches against an established strategic need. The main emphasis was placed on the planning and not on budgeting. In the late sixties, a new planning method appears called Project management. Some parts of the planning technique were used in many organisations for planning in departments that dealt with data processing. The main emphasis was on the valuation and ranking of output or evaluation of programs rather than on summation of inputs, that is, on costs. It is important here for the technique of ranking to be enriched and expanded in a way to include non economic factors such as technical feasibility, operational feasibility, legal requirements, risk of inaction and immaterial benefits. At that time, many organisations began introducing basic methods of management by objective (MBO) into their planning. At Texas Instruments in the US, that type of planning was called “Objectives, strategies and tactics” (OST) planning system. During the mid seventies, a consulting company McKinsey and Co
developed an analysis of operational values (overhead value analysis, OVA), which had as a goal to cut staff costs. The analysis itself focuses on the programs and services, which are subjected to strict cost benefit analysis. This method introduced the „sign-off“ technique, which requires from each manager who incurs an expense or supplies the service to closely cooperate with those who would have benefit, i.e. the receiver of that service. The last method, which Cheek mentions is „Bracket budgeting“, which is meant for line budgets. This method has similarities with zero base planning method because it uses statistical analysis, which seeks to assess the likelihood of program benefit being realised. (Cheek, 1979:8-11). Neuman (1975) points out that this method is not for every company and should be used only in two situations; (1) when its short-term need to improve profits is acute, and all other areas of cost reduction have been exhausted; and (2) when it cannot gain a badly needed competitive edge in the market-place without a decisive improvement in its economic structure.
Table 1: A comparative overview of planning methods in terms of implementation, used technique and objective.

<table>
<thead>
<tr>
<th>BUDGETING METHOD</th>
<th>IMPLEMENTATION</th>
<th>USED TECHNIQUE</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital budget</td>
<td>within the capital planning</td>
<td>cost analyse, analyse of benefits and possible alternatives, analytical</td>
<td>the most perspective program selection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>techniques of evaluation</td>
<td></td>
</tr>
<tr>
<td>Program, Planning and Budgeting (PPB)</td>
<td>within long term program planning process</td>
<td>cost planning by programs, cost effectiveness analyse</td>
<td>cost justification of alternatives according to defined strategy</td>
</tr>
<tr>
<td>Project management</td>
<td>in the programming projects for data processing</td>
<td>evaluation and output ranking by program, analitical techniques, noneconomic</td>
<td>cost justification of several alternative approaches against defined strategy, noneconomic factors analyse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>factors analyse (technical and operational feasibility, risk of non</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>acting intangible benefits)</td>
<td></td>
</tr>
<tr>
<td>Management by objectives (MBO)</td>
<td>within the planning and evaluating process</td>
<td>ranking objectives in order of importance</td>
<td>transforming objectives and strategies into tactical operating budgets</td>
</tr>
<tr>
<td>Overhead Value Analysis (OVS)</td>
<td>programs, services and subjects analyse</td>
<td>cost benefit analyse, close cooperation between managers (&quot;sign-off&quot; technique)</td>
<td>reduction of overhead costs (for example: staff costs)</td>
</tr>
<tr>
<td>„Bracket Budgeting“</td>
<td>for line budgets rather than staff</td>
<td>use of statistical analyses</td>
<td>to estimate the benefits of the program being achieved</td>
</tr>
<tr>
<td>Zero base budgeting (ZBB)</td>
<td>program oriented, all organizational levels participate in planning process</td>
<td>defining decision units, cost benefit decision units analysis, ranking,</td>
<td>cost benefit analyse of all organizational activities, selecting the best alternative, descending responsibility from top to middle management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>developing alternatives, linking decision units with the company strategy</td>
<td></td>
</tr>
</tbody>
</table>
Dirsmith, Jablonsky i Luzi (1980) mentioned that planning techniques PPB, MBO and ZBB have not experienced success in the public sector because they have been used more as political strategies and ritualistic symbols for control and less as a management tool for improved decision making within Federal bureaucracy. As one of the causes of PPB and MBO planning failure point out decentralized decision-making process that methods represent. The main problem at a decentralized decision-making organization is to reach an agreement on the decision strategy and evaluation which would be equal at all organizational levels, strategic, operational and tactical.

This is especially hard to accomplish in a public sector which is determined by inertia and slowness in decision-making as well as in the exchange of informations. Given the high degree of computerization in modern era the great potential is seen in the increasing use of information technology in the public sector at all levels of decision-making. This brings down the gap between information flow in the public sector and the slowness regarding decision-making. At that time when zero base budgeting was introduced to planning, it was emphasized as a big disadvantage. A great loss of time was spent on planning that carried out a "bunch of paperwork". Today, information technology goes in favor of this method, and in combination with the managers who have broad knowledge, ZBB method receives another chance.

According to Phyr (1972) the difference between PPB and MBO is that ZBB method is an approach, and not fixed procedure or set of forms which are being used uniquely in an organization. For success of this method the holistic approach of the organization needs high degree of management involvement in the entire process. Primarily a clear top-down communication is the first step in the process of method implementation which provides quality feedback from lower management levels. Defining “decision units” is the hardest but also a key step in which top management brings the final decision about financing activity or program adjustment with the defined strategy.

Duffy (1989) claims that the failure reason of PPB, MBO and ZBB methods lies in replacement attempt for integrated planning process and marketing process and in that way was not defined as a process with its boundaries and scope of works. Methods are useful and functional when are used as a part of the process and not as a substitute. Ackoff (1981) claims that the biggest limitation for further organization growth lies in organization itself in terms of defining the mission, vision and objectives on paper and actual situation.

Management which decides to implement one of this techniques must have a broad knowledge what this techniques offer and what are the key steps in which mistakes should not happen. To achieve the goal management must be familiar with organization structure, processes and inside connections. Additionally must know logic and possess good planning knowledge, management, organizing, leadership and control. Advantage of zero base budgeting is that it is created according to the needs of the organization and can be used in some parts of the organization such as for special program development where investments are extremely high. One of the failures is definitely a lack of support from leading people in the company who often expect fast results from using the method while real savings and benefits are seen in the long run.
Zero base budgeting method appears in a situation of changing environmental conditions where there is a scarcity of resources, profit is jeopardized and changes are frequent. Pyhrr (1970) said that organizations have traditionally accepted existing plans and expenditures as necessary, without examination. There is a certain level of latency concerning traditional planning due to the fact that last year plan realization is implemented into a next year plan. This new plan is higher than a last year plan due to inflation, new projects and investments.

Patillo (1977) says that there are two reasons when it is considering of implementing the zero base budgeting method. The first reason is a formal recognition that the current state of affairs will be based on planning for the future as one of the alternatives. The other reason is that the structure of Zero-Base Budgeting is by itself a device whose consistent implementation contributes to the effectiveness of such an effort (Duffy, 1989).

Pyhrr (1972) defines the zero base budgeting method as an operating planning and budgeting process which requires each manager to justify his entire budget request in detail from scratch and shifts the burden of proof to each manager to justify why he should spend predicted funds. The method itself forces managers to be actively involved into the planning process due to the fact it places the task which includes consideration of all activities within his competence, its costs, alternatives, measures of effectiveness and finance efficiency of a certain activity. Without justifying the proposed activities he will not get the funds for future activities.

Rethinking the alternatives for every activity defines a minimum level of activity financing. That is a level below which expenses are not allowed to be, because this would lead to a problem in performing of regular activities. Minimum levels of expenditures for projects are then identified, normally at 75 percent of existing (Duffy, 1979).

“Decision packages” are ranked by expenditure level from the lowest costs and at least efficient to the most expensive and efficient “decision package”. Based on the experience Cheek stated that the key factors for ZBB success is the approach in planning process as a long-term process, high-level support, involvement and commitment of top management, encouraging creativity by cost managers such as good sales techniques in selling the concept itself and the ideas emerged during planning (Cheek, 1979).

One of the good examples of applying ZBB as a platform is in situations of managing costs according to the cost cutting principle particularly in a crisis situations. When companies are facing problems most often due to ignorance, managers are uncertain how to solve the problem. Serious problem for the company represents lack of liquid assets needed for settling costs and investment realization. When this scenario happens managers often tend to use a cost cutting method. Cost cutting is a popular tool for achieving short-term saving effects. If the method is not used properly, on a long-term run it will not give the effective results. According to Buntak et. al., 2013, the first and the basic step which requires a cost cutting method is the diagnosis of the current situation. In order to know how to use a cost cutting method the cuts must be done selectively. In order to achieve a long-term success, selective cost cutting is possible by using zero-level budgeting. Refered method must define every activity in the company starting from zero according to the “cost-benefit” principle where is
strictly monitored the level below which the activity could not operate. In their paper, the authors have pointed out the compatibility of both methods and better effects of cost management in case of common use.

Long time ago Porter has concluded that if company wants to seize the opportunity on the market it must know what resources are on disposal. Every organization must acknowledge it’s weaknesses due to optimal resource allocation.

According to Pyhrr (1976) traditional planning method includes cost estimation of current activities and cost estimation of new activities while ZBB method evaluates current activities and alternatives, and identifies and evaluates new activities and alternatives. That’s why the ZBB method is a good platform for cost situation analyse and therefore the overall condition of the organization and for making optimal decisions about program financing through the selection of alternatives. When an organization by applying the ZBB method reaches the information where it is really positioned, only then it can start making quality various budget types in accordance with defined development strategy of the organization.

CONCLUSION

Planning process is very demanding and exacts great effort of the whole organization. It is based on the previous experience, knowledge and anticipation of future development. It is required from management to have broad knowledge and understanding of key factors that affect the company. In the planning process activities must be defined within the given limitations of the organization which will generate profit in the future needed to achieve the defined vision of the company.

Traditional planning method can not respond to a dynamic environmental changes. The basis of this method lies in its control function so in the planning process more attention is given to the expenditures and less to the income planning. It is more past oriented and more likely the past activities will not happen again. Anyway due to lack of knowledge and no surroundings analyse same activities are planned for the next year. Such behavior pattern leads to year to year expenditure increase and inefficiency of the planning system.

Planning, programming and budgeting method is the first management technique that started considering environmental changes. The planning process starts from the top where organization mission is defined and accordingly an organizational requirements annual plan. This method introduces a planning based on a cost-effectiveness analysis of the programs and consideration of program realization in a most cost-effective way possible.

Management by objectives is a planning process that starts from the bottom of the organization and goes to the top. It promotes a self management concept and encourages the planning process to go in both directions. Planning process includes general objectives planning to the individual objectives planning and vice versa. Practice has shown that the planning process generally goes top to bottom. This management technique emphasizes the planning results and not planning activities. Certain authors point out that mutual communication in the organization is the key to the succesfull method realization.

PPB and MBO methods are not included in the problem (issue) analysis. With both methods we can not determined what is the actual inside situation, which activities are generators of
future incomes and which are additional costs of the company. Zero base budgeting should be considered as a powerful tool for achieving planned objectives. Method is valuable because with its application it is clearly visible the actual inside organization situation and business efficiency improvement. Primarily it is based on the assumption that the company business activities should be planed from zero base. This prevents illogical copying of plans from previous years and understanding the role of planning as a continuous routine. Also it requires broad management knowledge and involvement in planning and implementation process. During the process of making “decision packages” the lowest level of management implements their knowledge of the actual needs and real costs of company activities. It is essential that for each company activity exist several decision packages and that each describes different cost level.

This way the middle management receives feedback from lower management about real costs, present and future requirements for all budget units. Top management receives update what is happening within the company and which activities are really crucial for development of organization and which activities should be reorganized or terminated and then makes final decision. Using this method it creates synergy effect in every management level of the organization and it is a good platform for optimal planning process. For this reason it can be concluded that working hypothesis zero base budgeting (ZBB) as a platform in a combination with some of the modern methods enables optimal planning process, is confirmed. Therefore in this combination with particular modern methods it creates added value of the organization during the process of long term planning. Although at some time method was particularly criticized due to complexity, the development of IT technology enabled return of this method especially as complementary pair with some of the modern management planning methods.

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