The 8th International Scientific Conference
"DEFENSE RESOURCES MANAGEMENT IN THE 21st CENTURY"
Braşov, November 14th 2013

BUDGETING AS AN IFORMATION RESOURCES MANAGEMENT TOOL

ENG. RUSU GABRIEL-CONSTANTIN

Regional Department of Defense Resources Management Studies / Braşov

Abstract:
A budget can be defined as a financial plan of action or a quantitative expression of planned activities. The Information Resources Management (IRM) budget alone does not provide a complete picture of the IRM's level of responsibility or training needs, but is a tool that enables implementation of its strategic goals and their associated objectives, that are aligned with the organization mission, organization vision, general strategic goal and related general strategic objectives.

1.Introduction

Information Resources Management means "the process of managing information resources to accomplish the mission and to improve organizational performance."[1]

The term 'Information Resources' includes "information and related resources, such as personnel, equipment, funds and information technology."[2]

Information Resource Management (IRM) is a management concept that brings together individual's knowledge and skills, information, organizational goals and objectives, and information technology, with a final goal: using IRM to effectively accomplish the organization's mission. Also, the term includes the management of information resources, e.g. printed materials and electronic information, various equipment and technologies that manipulate these resources, and the people who generate, organize, and disseminate those resources.

1. Information Resources Management (IRM) history

The earliest effort to place information and knowledge in an economic context of significance to business and government, and established the concept of information economy was made by the Princeton economist Fritz Machlup in 1962. But Adrian McDonough – Microeconomist - Economics & Business Management is the person that understands the role of information for the economic performance and said in 1963: **"Treat information as a resource"**.

In the early 70', USA enters in a state in which everything was based on information, but Information Resources were not yet managed.

In 1975, was established the USA Congressional Commission for analyze and assess information as a resource. The USA Congressional Commission findings were that information was considered a "free good", information was not managed, the computer acquisitions were done with little accountability and big information handling costs.

The Commission's perspectives and concerns were that information is a valuable resource for the government and citizens, has a cost, is not a free good and information resources must be managed (collect only information needed, information should be integrated and information should be shared). Also, it was revealed the rising cost of information technology as a significant portion of programs cost, and information costs are largely hidden and invisible.

Conclusion: the commission provided a model for IRM (Information Resources Management) legislation.

In 1979 John Diebold brings IRM concept to business, stating that the information is a supplementary capital beside the physical assets. Successful organizations will use information…

- as a major resource and structure it as efficiently as they do with other assets . . .
- as a capability that allows them to change tactical plans more rapidly . . .
- primarily for planning and decision making . . .
- to measure performance and the organizations responsiveness to its growing and varied constituencies …
- to form instantaneous bonds with the customer . . .
- for tracking product performance, liability and product
- maintenance on a longer-term basis.

In order to implement the concept, in 1980, from the Paperwork Reduction Act, all US agencies were required to establish a new management function, called "Information Resources Management" or "IRM". The Paperwork Reduction Act establishes some guidelines:

- Minimize paperwork burden;
- Minimize information costs;
- Maximize information usefulness;
- Coordinate information policy;
- Ensure effective information technology acquisition to improve service delivery;
- Ensure information management consistent with law.

In 1996, the Clinger-Cohen Information Technology Management Reform Act opens a new era in IRM (Information Resources Management) by introducing a number of significant reform initiatives:

- Acknowledge the criticality of information systems to effective governmental performance,
- Focus on organization management and effectiveness,
- Update policies for information technology acquisition,
- Establish a mechanism for holding organization's leaders and their information systems accountable for achieving efficiency and effectiveness in all operations.

The main issue in this respect is how to put into practice even the most perfect law/policy? The answer is having the right people in the right positions!

3. Chief Information Officer (CIO)

The Clinger-Cohen Act establish in each military/civilian organization a **Chief Information Officer** (CIO) - to focus on IRM management.

Also, the Clinger-Cohen Act establishes issues or problems to deal with:

- Information assurance and network security;
- Privacy, confidentiality, and accessibility of information;

- Records retention and e-mail preservation;
- Electronic submission of paperwork and public key infrastructure;
- Information technology acquisition and contracting;
- E-commerce;
- Management reform, institutional change, and electronic government.

The central IRM policy functions reside within the Office of Information and Regulatory Affairs (OIRA), and Office of Management and Budget (the American equivalent of the Ministry of Finance). *As a result, there is a direct responsibility and accountability linkage between Office of Management and Budget (OMB) and the organizations chiefs in regard with the IRM domain.*

The acronym CIO - Chief **I**nformation **O**fficer, is "a job title given to someone within an enterprise who heads, at the executive board level, information technology within an organization. The CIO is largely responsible for the computer systems and the information technology (IT) that support the organization, and works within the organization's budget to oversee the IT implementation, often reporting to the organization's CFO (**C**hief **F**inancial **O**fficer). Within the organization, the job of a CIO is to overall derive greater demonstrable business value from IT spent..."[3]

As information technology (IT), or information communication technology (ICT) and systems have become more important, the CIO has come to be viewed in many organizations as a key contributor in *formulating strategic goals*. The importance of the CIO position has risen greatly as information technology has become a more important part of business. The CIO may be a member of the executive board of the organization.

4. Role of the CIO

A role is the set of responsibilities and/or expected results associated with a job. Complex positions in an organization such as the CIO may include a large number of tasks, which are sometimes referred to as functions (McNamara 1997).

In time, the role of the CIO has changed significantly from the technology administrator to the senior executive responsible for aligning IT with the business goals and leveraging IT to achieve the strategic vision of an organization.

The CIO role has become much more strategic, with the CIO often sitting on the executive management board. As IT has become more important, the CIO has become a key contributor in formulating the strategic goals of an organization. In many companies, the CIO reports directly to the Chief Executive Officer (CEO).

5. Aligning IRM with organizational goals and performance measures

"Strategic planning is an organization's process of defining its strategy, or direction, and making decisions on allocating its resources to pursue this strategy.

In order to determine the future direction of the organization, it is necessary to understand its current position and the possible avenues through which it can pursue particular courses of action. Generally, strategic planning deals with at least one of three key questions:

"What do we do?"
"For whom do we do it?"
"How do we excel?"

Many organizations view strategic planning as a process for determining where an organization is going over the next year or—more typically—3 to 5 years (long term), although some extend their vision to 20 years, or even (in the case of Mitsubishi) 500 years."[4]

Strategic Planning key components are: organization mission, organization vision, general strategic goal and related general strategic objectives.

Mission: defines the fundamental purpose of the organization, succinctly describing why it exists and what it does to achieve its vision.

Vision: outlines what the organization wants to be, or how it wants the world in which it operates to be (an "idealized" view of the world). It is a long-term view and concentrates on the future, a description of the desired future state of the organization;

General strategic goal is an elaboration of the mission statement and vision statement that should provide greater specificity of the desired future (or end state) that the organization is working to achieve, expressed so as to facilitate future assessment as to whether the goal was or is being achieved, no achievement date and outcome or result oriented.

General strategic objectives represent an elaboration of the general (strategic) goal, expressed so as to facilitate future assessment as to whether the supported strategic goal was or is being achieved; is closed-ended (contain an achievement date), outcome or output oriented and directly measurable (contains performance indicator).

In an organization or an enterprise, information technology and computer systems are important tools used to support organization or enterprise goals. Strategic planning and IT should be aligned. In this respect, vision and mission are up-to-date, clear and understood, primary and support activities are identified, accountabilities are assigned, goals and performance measures are agreed on, activities are aligned with goals and performance measures, IT is a performance enabler for activities/processes in achieving their goals, systems are established for collecting and using performance data, and performance gaps are identified. If activities aren't aligned, information technology may do more harm than good.

6. Budgeting

A budget is defined as management's quantitative expression of plans for a future period of time, usually a year. Budgets are prepared at different levels of an organization. The master budget is defined as the overall financial plan for the period, which reflects the organization's goals and objectives. The master budget includes operating and financial budgets. Operating budgets show the organization's planned sales and operating expenses. Financial budgets reflect financing plans such as borrowing, leasing and cash management.

Budgeting, when done properly, can serve as a planning and controlling system. By budgeting, the company's goals and performance objectives are documented in financial terms. Once formulated, these plans are used throughout the year.

Planning is a future oriented process of determining the volume, structure and allocation of resources (human, material, financial etc) needed for the fulfillment of objectives. Planning involves making predictions and assumptions about organization's external environment, which is incontrollable: social, technical, economic, political variables. Because external environment factors can not be manipulated, a plan consists of what management is going to do with the variables it can control.

The planning process starts with goals establishment.

BUDGETING AS AN IFORMATION RESOURCES MANAGEMENT TOOL

Performance objectives, or targets, are excellent means of implementing goals – associated objectives, and can be stated in financial terms for a specific period of time.

Preparing the master budget requires coordination of all activities performed inside the organization. It integrates planned expenditure, revenue plans, asset requirements and financial needs.

The assumptions and specific plans detailed in the master budget should be documented – a key for the budgeting process.

The budgeting phase. All department's managers, including CIO, initiates the budget preparation phase. Each of these managers prepares an operating plan for the next year and submits it to the budget director.

Like all others department's managers, CIO must also prepare a program for operating IT that will become the basis for this department's operating cost and expense budget. Information Resources (IR) budget is the total of all funds needed by IR operations and projects, both development efforts and technology upgrades, for the entire organization during the next year period. It consists of all:

- IR internal staff costs;
- IR procurements (whether purchased, rented, leased, leased for purchase, or licensed) for all hardware, software, and services. This includes:
- Computer hardware;
- Hardware maintenance;
- Software;
- Software maintenance;
- Contract services (consultant and non-consultant);
- Disaster recovery services;
- Site disaster recovery costs and/or data center operations costs;
- Telecommunications (voice, data, hardware, maintenance);
- Training (end user or IT professional);
- Supplies;
- Other.

In addition to the operating plans of all departments, the budget must be completed with the capital investment programs required by the department's managers to accomplish their goals and objectives.

Translation into budget. With all of the basic data furnished, the task of assigning currency values to the operating and financial programs is the next step in the budgeting process. This step is accomplished by translating the program into currency and by using the same account codes used in responsibility reports.

Management review and adjustments. The budget draft is submitted to the CEO with comments and recommendations. When the project result of the budget is not satisfactory, the CEO ask department's managers to adjust their programs in specified ways to accomplish the desired profit and return of investment goals. After suggested changes are made, CEO will approve the organization's budget.

This control and evaluation phase is very important, as it "insures the feedback regarding the accomplishment of the objectives set for each program, in correlation with the budgetary execution"[5]

Budgetary slack. Because performance objectives are set during the budgeting process, conflicts between personal and organizational goals can arise. For example, from the IT personnel perspective, IT is the most important department inside the enterprise. The computers must be upgraded according with latest gains of technology, the programs (soft) also. But IT is not in the productive area of the business.

From the other's point of view (for example, Chief Financial Officer), all the expenditures should be made especially for the productive sectors of activity, in order to improve organization's productivity/effectiveness.

Here comes the CIO's role. CIO proposes the IT infrastructure that the organization/enterprise will need to achieve its goals and then works within a budget to implement the strategic IT plan. He must made a balance between upgrading the IT tools and technology, costs and benefits, ensuring that the business navigates these trends through expert guidance and proper strategic IT planning that is aligned to the strategy of the organization.

7. Conclusion

A budget can be a very important and effective tool for management in guiding and controlling the affairs of the organization. However, to prepare a useful and appropriate budget, the organization must know where it is heading and what are its goals and objectives. Priorities change and this means that many people should be involved in the budget preparation and approval process to ensure the resulting budget is fully supported."

IRM is driving or heading up crucial IT projects which are essential to the strategic and operational objectives of an organization. To work properly, IRM needs financial resources, which are reflected in the organization's budget.

"Once prepared, the budget must be compared to previous results on a timely basis throughout the year to ensure that management knows where deviations are occurring for corrective actions to be taken when necessary. The budget is a tool or management, not a substitute for management. A good budget can do very little by itself. Good management and a good budget can do much together."

References:

[1] Section 3502 (7) of Title 44, United States Code, Paperwork Reduction Act of 1995)
[2] idem
[3] http://www.webopedia.com/TERM/C/CIO.html
[4] http://en.wikipedia.org/wiki/Strategic_planning
[5] Maria Constantinescu, *Implicații ale schimbării managementului integrat al resurselor de apărare asupra bugetării*, Elaborarea unor variante de management integrat al resurselor de apărare în acord cu provocările integrării în NATO şi UE, Masă Rotundă, Braşov, 29 mai 2008
[6]Nigerian journal of research an production, NIJOREP, Vol. 3 No. 5, September, 2003, p. 55-60.
[7] Cezar Vasilescu, *An Introduction to Information Resources Management*, Defense Resources Management, editura Universitatii Nationale de Aparare Carol I, bucuresti, 2012
[8] 8th Australasian Conference on Information Systems Critical Competencies for Modern CIO, 5-7 Dec 2007, Toowoomba, Lane
[9] http://www.flexstudy.com/catalog/schpdf.cfm?coursenum=95075