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INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)

The Concept of Creating a Strategic Plan Database
(on the example of higher educational institutions)

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Abstract

The article discusses the importance of strategic planning process for higher education institutions. The concept of creating a strategic plan database is proposed. The importance of the proposed concept is substantiated. In particular, it will help higher educational institutions in the optimal management of their strategic plans. As a result, universities will be able to save time and resources to make better decisions.

Key words: strategic plan, databases, information systems.

For higher education institutions, the strategic planning process is important in shaping their future. Properly defined goals and objectives by managers are one of the necessary conditions for the success of organizations. Strategic planning allows an organization to set its priorities, allocate resources, align employees around their goals and ensure those goals are supported with data and analysis. The planning process needs to focus on raising the quality of teaching, increasing research and scientific results and promoting partnerships between educational institutions and communities. The head of each structural unit should be involved in the development of the strategic plan. They must deeply understand the importance of a well-planned strategy, as well as benefits it can bring to the institution's identity, image and reputation. Strategic planning methods can help the head of an institution align day-to-day activities with the institution's goals, be able to measure each goal, which will allow him/her to track progress, detect deviations from the plan and correct them based on the appropriate decision. Strategic planning is not a one-time process, it is continuous and therefore its periodic evaluation is important [1,2].

A strategic development plan is a tool that enables the organization to successfully achieve its goals in accordance with its mission, vision and values.

Both in the process of strategic planning and its execution, it is important to correctly define the stages necessary to achieve the goal.

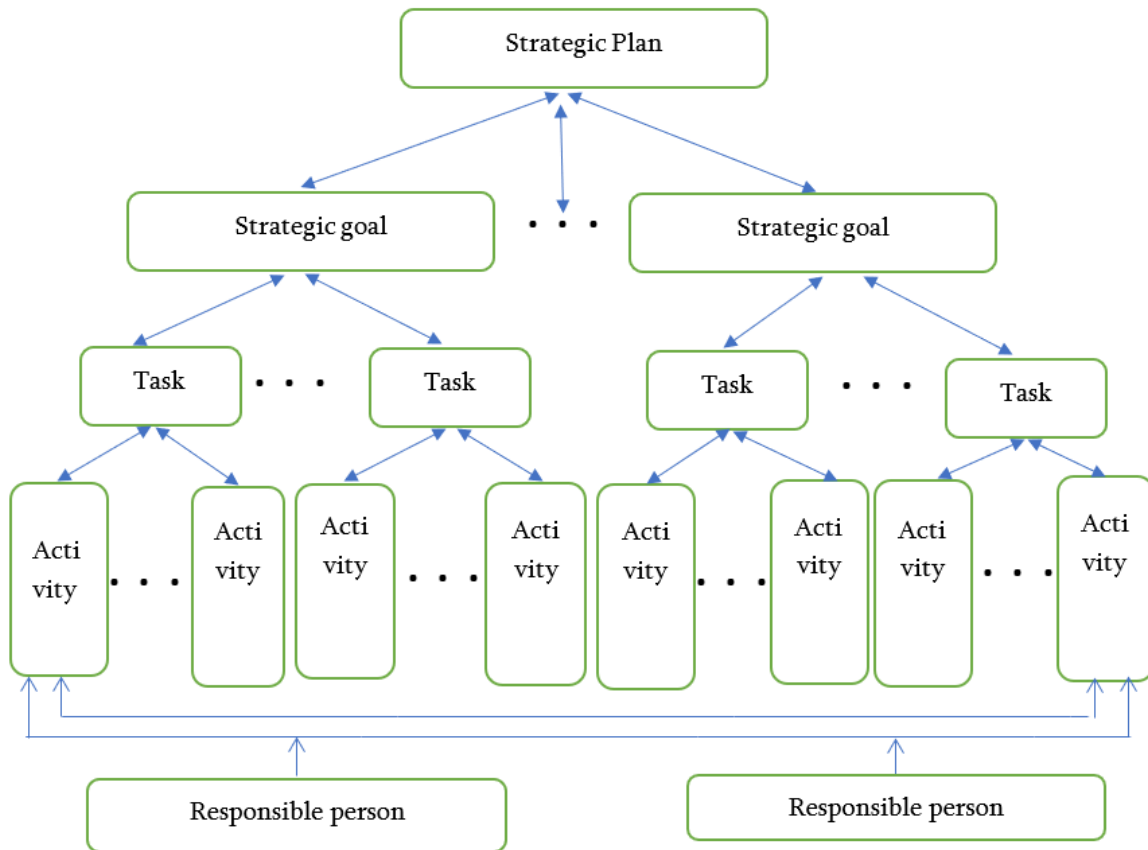
In the strategic planning of the university, the logical connection between each part of the plan (Fig. 1), the place of each structural unit, etc. should be clearly provided.

When working on a strategic plan, we face the biggest problem in the process of collecting and analyzing information, because we have to deal with a very large amount of data. At the same time, it is important to quickly process and analyze the data so that the head of the organization can make the right in terms of achieving the strategic goal in order to quickly eliminate the problem(s). The basis of the concept of creating a strategic plan database is derived from this basic notion.

As we all know, the 21st century is recognized as a new stage in the development - the period of formation of the information society, in which information technologies play the main role.

When we talk about information technologies, we basically mean the creation of a multimedia communication environment, through which non-verbal information is freely exchanged, both between people and between people and computers. It is the latter that is **the basis for computer based implementation of a formalized**

model of optimal management for strategic plan execution, where information is of great importance for decision-making.



1. Structure of the strategic plan

As mentioned above, the manager needs to analyze information to make a proper decision. The more complete the informational base, the more complete the desired decision is made. In order to make the right decision, it is necessary to give the information data an orderly look, which is possible in the form of databases.

Databases provide an efficient, secure and flexible way of data storage, and the need for its creation is due to the increasing trend of information flow and most importantly, to speed up the information processing.

We would like to emphasize the fact that there are two classes of information systems: information-retrieval and data processing systems.

In our case, in the process of computer based realization of the formalized model, we use both, although the second one is primary.

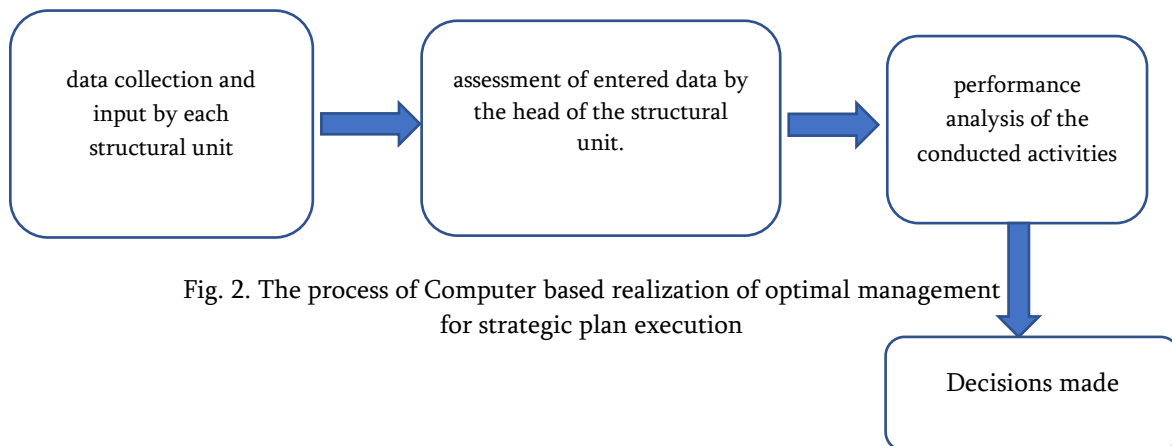


Fig. 2. The process of Computer based realization of optimal management for strategic plan execution

Finally, in the **computer based implementation of the optimal management for the strategic plan execution** (Fig. 2), we can distinguish the following stages:

Stage I - data collection and input by each structural unit.

Stage II - assessment of entered data by the head of the structural unit.

Stage III - performance analysis of the conducted activities.

For automation of the process, it is necessary to build and analyze a **formalized model of optimal management for strategic plan execution**.

Optimality always implies the most favorable, the most suitable, the best, adequate etc.

Let us build a formalized model of optimal management for strategic plan execution.

Before elaborating on the formalized model, let's consider the working principle of the database, which is as follows - each activity has its responsible structural unit, deadlines, budget and indicators. After performing an activity, the representative of a structural unit enters the relevant information into the database, taking into account the indicators. The head of the structural unit makes the analysis and evaluates each activity. This means that he/she should compare what was thought in the planning of the activity at the beginning and to what extent it was carried out. For example - it was completely, largely, partially or not fulfilled. In order to have a clear idea of the process, let's match the numbers to each one. e.g. completely - 3; largely - 2, partially - 1 and not fulfilled - 0.

After these operation, the database will provide information on how many activities have been fully, largely, partially or not performed, which structural unit has a problem in terms of performance and where there is a need to involve the supervisor in the process.

In order to formalize the process, let's introduce the following notations:

A_i , $i= 1, 2, 3, \dots, I$ - activities;

S_j , $j=1, 2, 3, \dots, J$ - tasks;

G_i , $i= 1, 2, 3, \dots, I$; strategic goals;

A_p - conducted activities

$A_{u.p}$ - unperformed activities

$S_j = \sum A_1 + \sum A_2 + \dots + \sum A_n$

$G_i = \sum S_1 + \sum S_2 + \dots + \sum S_n$

As we have mentioned, the maximum rating is 3 and the minimum is 0.

If $A_p - A_{u.p} \Rightarrow \min$. this means that most of the tasks are unperformed and it should be considered a negative event.

If $A_p - A_{u.p} \Rightarrow \max$. this means that most of the tasks have been completed and we can consider it a positive event.

Finally, we can say that the concept proposed by us will help higher educational institutions in the optimal management of their strategic plans, that will help them save time and resources to make better decisions.

Bibliography

1. <https://www.techtarget.com/searchcio/definition/strategic-planning>
2. <https://www.bdc.ca/en/articles-tools/business-strategy-planning/define-strategy/strategic-planning-demystified>

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რეფერატი

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