# პასუხისმგებლობების ცენტრები უმაღლეს სასწავლო დაწესებულებებში

ამაშუკელი მაია
საქართველოს უნივერსიტეტი

*მოცემული სამუშაოს მიზანს წარმოადგენს უმაღლესი სასწავლო დაწესებულების მმართველობითი აღრიცხვის სისტემის შესაძლებლობების გამოვლენა პასუხისმგებლობების ცენტრების მიხედვით, უმაღლესი სასწავლო დაწესებულების იმ შიდა პროცესების სახით, რომლებიც უზრუნველყოფენ შემოთავაზებული საგანმანათლებლო მომსახურეობის ხარისხს.*

*უმაღლეს სასწავლო დაწესებულებაში მმართველობითი აღრიცხვა შეიძლება განვიხილოთ, როგორც მისი საინფორმაციო სისტემის ნაწილი, რომელიც ქმნის შესაბამის ინფორმაციას და უზრუნველყოფს მართვის ყველა დონეს განათლების ხარისხის ამაღლებისაკენ მიმართული მმართველობითი გადაწყვეტილების მიღებას.*

*ხარისხის შემუშავებისას უმაღლესმა სასწავლო დაწესებულებამ, პასუხისმგებლობის ცენტრების ფუნქციების შესრულების ხარისხის მართვის ინსტრუმენტის სახით, უნდა გამოიყენოს ფუნქციონალურ ღირებულებითი ანალიზი. ძირითადი ადაპტაციური სტრატეგია „მაქსიმალური ხარისხი“ შეიძლება გამოყენებული იქნას მხოლოდ პასუხისმგებლობის ყველა ცენტრის ფუნქციების ხარისხიანი შესრულების პირობით, რომლის მონიტორინგსაც ხარისხის მენეჯმენტის სისტემა უნდა უზრუნველყოფდეს.*

# Responsibility Centers in Higher Education

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In the 90ies, for hundreds and thousands of European companies, a quality as surance, a total quality management (TQM) and a quality confirmation certification became the most important matters. First, the importance of quality and of its contin uous improvement for growth of organizations and success in business was declared by the Japanese industrial companies. Later on, this wave of Struggle for Quality reached Europe as the ISO 9000 standard. Although the ISO standards only partially

cover TQM and the TQM is only a constituent of those standards, in Europe, ISO certification turned de-facto the most accepted form of quality confirmation. (Powell, 1995)

Right after the industrial companies, users of educational system started requesting the quality confirmation. (Burgar, 1994; Chizmar, 1994; Yudof, Busch-Vishniac, 1996) In this context, for educational institutions, certification turned out to be a response to that requirement. (Rhoades, 2004)

TQM has been applied to business and industry; and recently has been introduced (Luxton, 2005), experimented and implemented in higher education institutions (Charles, 1992) to provide high quality and standards for both industry and higher educations. (Najafabadi, 2008)

The earliest applicants for the ISO certification in the educational system were business training institutions and it was reasonable as such organizations were closer to business than other traditional universities. Since the 90ies, other broad profile universities have started implementing the ISO certification and TQM processes. Some of them preferred to have such certification only in certain parts of their operations.

There is no doubt that today the educational system undergoes rapid changes and obviously, it will do it also in the future. It is inevitable as communications technologies are rapidly developing (E-learning, remote learning etc.). That is why an institution of higher education must think it over to save itself and take actions globally. (Marginson, 2006)

How can a university convince its future students and their employers of getting much more than they expect?

An answer to this question, despite some scientist's critical attitude, according to the university experience of many countries, turned out to be the TQM application in the university management system (Luxton, 2005; Yonezawa, 2002; Shastri, 2010; Leveille, 2005).

A management directive for ISO 9001:2000 application in TQM and educational system is IWA 2.

In order to help education institutions, the ISO IWA 2 standard appeared in 2003: "Quality Management Systems. Guideline for the Application of ISO 9001:2000 in Education" (revised in 2007). It did not add anything to, did not replace or modify the requirements of ISO 9001: 2000; it was conceived with a view to allowing a clear understanding of the ISO 9001:2000 and ISO 9004:2000 standards' requirements and of the way in which they are implemented in the education area (*IWA 2: 2007 – Quality Management systems – Guidelines for application of ISO 9001:2000 in education*).

IWA 2 refers to the university as the university production system (UPS) and defines it as follows: UPS is a complex of the following independent processes – teaching, learning and researching; the three independent processes use resources (including human resources), materials and information, which operate harmoniously to achieve specified educational objectives.

In the ISO 9000:2001 standards, the concepts are used such as Efficiency, i .e. a degree of achievement of planned results and Effectiveness showing a link between achieved results and used resources. These concepts are used whenever a degree of realizing any decisions made needs to be followed. To analyze IHE (RC) processes, their

description and interaction, different methods and instruments of quality control may be used subject to their specificity and needs, including VAM. As the term Function is a constituent of the term Process, a process quality may be interpreted as a quality of function performance of its constituents. Budgets of subdivisions and reports on the budget performance in compliance with performance criteria become a key budgeting component ensuring a link between the management accounts and the quality of education system. (José …,2006, Daedalus, 2000)

Table 1.
*Strengths and weaknesses of decentralized structural subdivisions of IHE based on RCs*

| Strengths | Weaknesses |
|---|---|
| Better quality of management decisions, less time for making such decisions. | Loses in result of unmatched activities of structural subdivisions |
| Concentration of responsibilities for making management decisions, fewer number of any potential co-ordinations | Working for a short-term perspective, effect of skimming the cream off leading to lower IHE effectiveness in future. |
| A university administration is out of a routine of petty controls, more time for addressing strategic objectives. | Greater distance between the IHE administration and its functional subdivisions. |
| A subdivision operates on the basis of "Cost-Profit" approach, lower tendency of re-using resources. | Uneven distribution of workloads between structural subdivisions, unfair competition for perspective and profitable trends of activities. |
| Clear performance criteria for structural subdivisions. | Possible lowering of effectiveness of some key functional activities. |

A concept Responsibility Center is a key to the management accounts by centers of responsibility. The concept of RC, According to Journal of Management Accounting Research first formulated by John A. Higgins in the middle of last century, offers a definition of degree of certain individuals' responsibility for financial results of their performance.

Responsibility canter is a segment of IHE whose manager is accountable for specified set of activities. Responsibility also entails accountability. Accountability implies performance measurement, which means that actual outcomes are compared with expected or budgeted outcomes. This system of responsibility, accountability, and performance evaluation is often referred to as responsibility accounting because of the key role that accounting measures and reports play in the process.

While forming a IHE management system by centers of responsibility on the basis of its organizational structure, it is required to follow Higgins's rule: every structural unit of an enterprise is burdened only by those expenses or incomes, which can be under its responsibility and control.

When defining the centers of responsibility, first of all IHE's organizational structure should be taken into account and then, its horizontal and vertical sections are seen. The horizontal section is limited to a circle of activities of individual persons responsible for the center while the vertical one predetermines a hierarchy of authorities of persons responsible for making managerial decisions. Independently from a structural subdivision size in the management account, four types of RC are identified, which are characterized by various degrees of financial responsibility and by managerial authorities of center leaders – cost centers, revenue centers, profits centers, investments centers. Comparative characteristics of the abovementioned centers are given in the table below.

Table 2.
*Comparative characteristics of centers of responsibility*

| Comparative characteristics of centers of responsibility | | | | | |
|---|---|---|---|---|---|
| RC types | Objectives of management accounts | Criteria of center performance evaluation | Criteria of financial responsibility of center leaders | Managerial authorities of center leaders | Comments |
| cost centers | Measuring and recording expenses at the input of CR | Direct expenses | A center leader is responsible for incurred expenses | The least managerial authorities, limited to controlling expense formation and its expediency | Centers of expenses may be either isolated or included in other centers of responsibility |
| revenue centers | Recording results of CR performance at the output | Size of earnings | A center leader is responsible for receiving earnings but not for expenses | Managerial authorities are focused on the matters related to receipt of earnings | Centers of marginal incomes may be marked out (a difference between earnings and variable expenses) |
| profits centers | Measuring and recording costs at the input of RC and expenses within this RC and net results at the output of RC | Size of profits received | A center leader is responsible both for incomes and expenses of the center | More authorities in making decisions (e.g. by quality and quantity of rendered educational services) | Number of centers of incomes depends on a degree of management decentralization. |
| investments centers | Measuring and controlling expenses and incomes of RC and evaluation of effectiveness and use of investments | Effectiveness of use of investments (rate of return on investments) | A center leader is responsible both for incomes and expenses of the center as well as for the effectiveness of use of funds invested to the center | The most managerial authorities (e.g. making its own investment decisions) | As usual, a center of investments is an organization as a whole, in this case – a IHE (university administration) |

Virtually, all given types of RC may be present in the IHE management system. The IHE management system by RC (financial system of management), which is based upon different degrees (Cole, 1995) of financial responsibility is shown below (Figure 1).

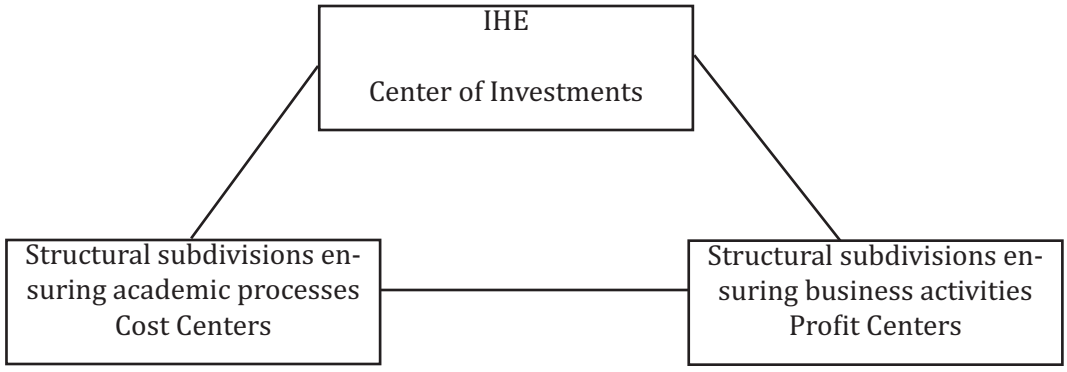



Fig. 1

Schematic diagram of decentralized IHE management system

Specific content of this scheme may be filled up based on analysis of current organizational structure aiming at the identification of the most expensive and the most profitable subdivisions.

For a successful decentralized system operation, highly skilled managerial personnel should be in place and all objectives and concerns of both IHE as a whole and its individual subdivisions should be well-coordinated. A decentralized management system formation assumes, first of all, that the following two interrelated objectives are met: sharing responsibilities among executors and controlling their performance. For that, center leaders should duly distribute the duties (functions) of their subordinate personnel and develop appropriate performance criteria.

For the managerial control, all cost incurred by RC should be divided into controlled and uncontrolled costs. In particular, the cost division into controlled (i.e. those expenses which may be governed by managers) and uncontrolled ones is the basis of accounting by centers of responsibility – being one of the most important approaches to the realization of management accounting at the IHE. (Huisman…, 2004)

One of the methods, which enable a manager to govern expenses (incomes) of RCs as required to meet the objectives of management accounting and to make reasonable managerial decisions is a value analysis method (VAM).

VAM differs from almost all other economic analysis methods by its universality, availability and relative simplicity of algorithms to enable evaluation of RC operations.

The value analysis means a method of systemic examination of object's (in this case, of CR's) functions focused upon minimizing expenses for its operation provided that both its quality and usefulness are maintained (improved). The VAM is based on a functional approach to the object examination, the main point of which is to examine the object not in its specific form but in combination of all functions to be performed by that object. In the VAM, a function means an external manifestation of properties of any objects in the given system of relations. A IHE management system may be identified with a condition of analyzed object – in this case of CR – its ability to operate, effect and serve the needs.

Using the VAM, managers first of all should formulate those functions which must be performed by their subdivisions independently from real executors, i.e. the functions required. Then they should classify these functions according to their variety:

< main function – determines RC's purpose, main point and meaning of its functioning as a whole;

< secondary functions – reflect secondary objectives of its forming;

< basic functions – play a leading role in ensuring RC's working capacity, ensure all appropriate conditions for the main function implementation;

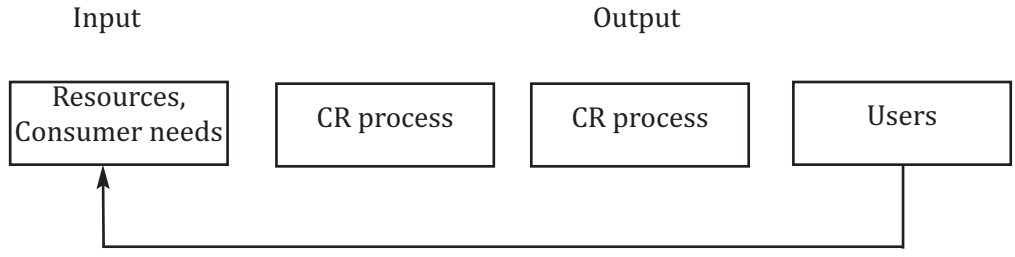
< auxiliary functions – promote and ensure realization of basic functions.

The function classification is a critical stage in the VA process, as it allows to proceed to quantitative assessments of functions such as a meaning and a relative meaning, which are determined on the basis of expert methods.

Functions' quantitative assessments are applied for comparing to relative expenses for the performance of these functions aiming at the identification of "faulty functions" where the relative expenses exceed their meaning. Manager's influence upon and control over expenses aims at removal of those faulty functions. At the same time, the main accent in the VA methodology is placed upon identification and pre-action of causes of inconsistency between the quality and the expenses and elimination of implications thereof.

According to ISO 9000:2001 standards, the term Quality should be construed as a degree of compliance of any object's characteristics (services, processes, products) with certain requirements (norms, standards). (Powell, 1995), Therefore, the quality of higher education is a balanced compliance of all aspects of higher education with certain goals, needs, norms and standards. (Hogg …, 1995) A comprehensive approach should be applied to the quality of higher education. This approach includes a guarantee of quality of requirements (goals, standards, norms), a quality of conditions (inputs to education), a quality of processes (scientific and academic, financial, managerial etc.), a quality of results (both current and aggregate results of teaching, characteristics of career rising of graduating students etc.) (Sporn, 2004, Karapetrovich …, 1998)

Thus, the centers of responsibility may be viewed – as in compliance with ISO 9000:2001 standards - as the processes, which should be construed as an aggregate of interrelated and interactive types of activity transforming both inputs and outputs. Any center of IHE's responsibility, when viewed as a process, may be presented as a scheme shown on Figure 2 below.




Fi. 2
RC process scheme

All types of activity related to processes are possible always provided that appropriate resources are available. On the basis of user assessment, CR manager may regulate the process aiming at the improvement of its efficacy and effectiveness. The main goal of the responsibility centers (RC) is to determine functionally required inputs to ensure the quality level of rendered services satisfactory to consumers.

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