

## FINANCIAL PERFORMANCE'S ANALYSIS OF UNDERGRADUATE EDUCATION

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**Keywords:** Financial indicator's, economical performance, evolution, university management

**Abstract:** Financial indicators are needed to establish the performance of the institution. These indicators are also used in establishing and setting the level at which it aims to reach when you wish to formulate a new strategy to improve its performance.

### INTRODUCTION

Institutional management is founded on strategies, which through their nature facilitate and help its integration into the environment in which they operate [Allaire and Fîrsirotu, 1998].

All benefits determined by using a strategy in an institution are seen in the results or performance [Kotler, Lee, 2008]. Higher performances are archived when the institution use over some period the strategies [Băcanu, 1997].

Financial indicators are expressed in the form of ratios between two sizes taken from the balance sheet or the result of economic reports that allow feedback regarding the financial situation, leading to the substantiation decisions for the future [Ciobanu, 1998].

The importance of financial indicators was stated into specialty literature and their roles for institution is highlight as well as for the relationship with external environment (cited: "before granting a loan, the banker studying the solvency of the enterprise, the creditor examine short-term liquidity, and the potential investor is first interested of its profitability. The manager is vital interest in all aspects of financial analysis" [Giurgiu, 1995].

A series of three classes of financial indicators were proposed for financial evaluation of Technical University of Cluj-Napoca. An evolution analysis of the proposed indicators has also been conducted.

### MATERIALS AND METHODS

Three different resources were used in order to reach the aim of the research: the balance sheet accounting; the patrimonial results of the Technical University of Cluj-Napoca during the years 2006 and 2007; and specialty literature [Giurgiu, 1996; Clark, 2000; Deac, Băgu, 2000; Nicolescu, 1998; Stăncioiu and Militaru, 1998].

Three classes of major financial indicators were proposed for this analysis (see Table 2). The methods used for the study were: comparative analysis, and tables and graphical representations.

Financial performance indicators that were proposed to be implemented at Technical University of Cluj-Napoca are divided into:

- Indicators of liquidity or balance
- Indicators of solvability
- Indicators of profitability

The financial data based on which were calculated the proposed financial indicators are presented in Table 1.

Table 1

Summary of financial data regarding income, expenditure and results: Technical University of Cluj-Napoca.

No.	Financial data	2006	2007
1	Operational incomes	113.422.301	176.270.296
2	Operational expenditures	84.052.439	107.543.677
3	Result from the operational activity (3 = 1 - 2)	+29.369.862	+68.726.619
4	Financial incomes	190.712	624.417
5	Financial expenditure	445.467	293.109
6	Result from the financial activity (6 = 4 - 5)	-254.755	+331.308
7	Result from the current activity (7 = 3 + 6)	+29.115.107	+69.057.927
8	Uncommon incomes	243	n.a.
9	Uncommon expenditure	3.734	4.646
10	Uncommon result (10 = 8 - 9)	-3.491	-4.646
11	Patrimonial result of exercise (11 = 7 + 10)	+29.111.616	+69.053.281

Operational incomes presented in Table 1, are calculated as the sum of all revenue recorded in financial accounts by university separately for the years 2006 and 2007. Its includes: income taxes, incomes from economic activities, incomes from financing, transfers, budgetary allocations, special purposes and other operating income.

Operational expenses include those expenses needed to carry out the current work of university, and are presented for 2006 and 2007. They include spending on salaries and social contributions, spending on subsidies and transfers (scholarships and social welfare for students), spending on the nature of materials stocks, consumables, spending on works and services performed by third parties, consisting of capital expenditure in expenditure depreciation of fixed assets.

The operational result is determined as the difference between incomes and operational expenditure. Financial income at Technical University level includes those resulting from interest incomes calculated interest and money available for pick-related revenue, owns available in commercial banks in current accounts or deposit or Treasury. Within the financial incomings are included too those resulted from differences in exchange rates recorded in foreign currency availability at commercial banks.

The expenditure financial at UTC-N includes those costs incurred for the payment of bank commissions charged of the commercial banks as a result of carrying out banking transactions, banking commissions as management fees, and financial expenditure resulted from differences in exchange rates for foreign currency. The result is calculated as the financial difference between incomes and expenditures accounts.

The outcome of the current activity is determined by aggregating the result of the operational activity accounts.

The revenues include those extraordinary incomes from extraordinary activity and include those uncommon expenses of the extraordinary work at the Technical University of Cluj-Napoca (e.g. fixed assets destroyed, the results as the difference between the value of entry and depreciation value until destroyed, etc.).

These costs represent basically the value of the undestroyed goods, scrapped earlier than the period of operation established by law, a period which is used to calculate depreciation

linear practiced by universities.

The outcome of the uncommon activity represents the difference between income and extraordinary expenses.

The patrimonial results are determining the outcome of the current activity and of extraordinary activity.

The performance indicators needed to improve financial performance are calculated based on data provided by the financial statements: The balance sheet accounting, patrimonial; the result patrimonial count of the Technical University in Cluj-Napoca for 2006 and 2007 (see Table 2).

Table 2

The formula for proposed financial indicators

No.	Indicators appellations (symbol(s))	Formula
1. Liquidity or indicators of equilibrium		
1.1.	Current liquidity indicator ( $I_{lc}$ )	$I_{lc}=A_c/D_c$
1.2.	Immediate liquidity indicator ( $I_{li}$ )	$I_{li}=(A_c-S)/D_c$
2. Indebtedness indicators		
2.1.	Indebtedness coefficient ( $D_g$ )	$D_g=(D_c+D_{tr,l})/A$
2.2.	Global coverage coefficient of financial charges ( $c_f$ )	$C_f=R_p/c_f$
3. Capitalizatio indicators		
3.1.	Rate of economical capitalization ( $R_e$ )	$R_e=R_o/A$
3.2.	Rate of financial capitalization ( $R_f$ )	$R_f=R_p/C_p$

$A_c$  – Current assets of the institution

$D_c$  - Current liabilities of the institution

$S$  – Stocks of the institution

$D_{tr,l}$  – Long-term debt of the institution

$A$  – Total assets

$R_p$  –Outcome of patrimonial

$C_f$  – Financial expenses

$R_o$ - Operational result

$C_p$  – Capital

Two liquidity indicators are used in economic practice: indicator of liquidity and current indicator of immediate liquidity. Immediate liquidity indicator is used in practice due to the impossibility of liquidity indicators to show if the institution can meet its obligations at maturity

This indicator shows at any time if the institution has the opportunity to honor their obligations at maturity. It also notes that the indicator values recorded over the one. They take values grater than one.

Two indicators are classified here: the coefficient of indebtedness and the global coverage coefficient of financial charges.

The indicators of indebtedness express the method in which the equity and borrowed capitals are used. The coefficient of overall indebtedness shows the risk to which the institution is subject. If the value of this indicator is close to one shows that the institution has a high degree of indebtedness.

The coefficient of coverage of financial shows whenever the outcome is greater than patrimonial annual financial expenditure. This indicator take values less than one.

The indicators of capitalizatio reflect the efficient use of assets by the institution. Two indicators were classified here: the rate of economical capitalization and the rate of financial capitalization.

## RESULTS AND DISCUSSIONS

The comparative analysis of revenue from table 1 showed a positive evolution (year 2007), compared to previous year (2006) by increasing the value of revenues. As it can be observed, the share of operating revenue was dominant, followed by an increase of financial revenue (Figure 1).

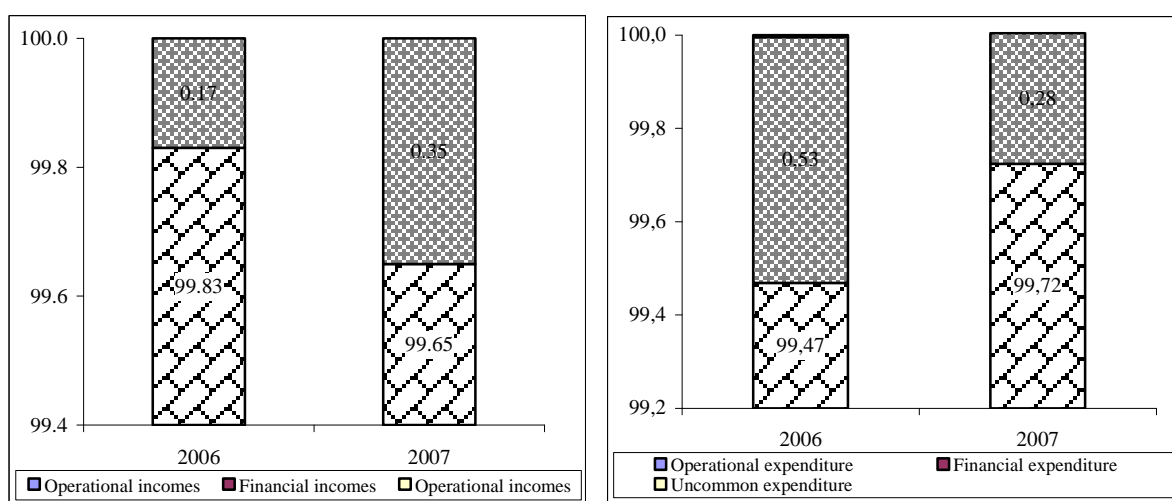


Figure 1

The evolution of groups of revenue (left) and expenditures (right) in accordance with Annex 02 of the accounting totals, the economic result of the Technical University in Cluj-Napoca for the years 2006 and 2007

The evolution of operational expenditure in 2006 compared to the year 2007 date is given by their increase, increase justified also by the increase of the income from one year to another.

The financial indicators are calculated based on data recorded by Technical University and are presented in Table 3.

Table 3

Financial indicators: Technical University of Cluj-Napoca

No.	Name (symbol(s))	2006	2007
1. Indicators of liquidity or balance			
1.1.	The current liquidity ( $I_{lc}$ )	3,04	3,22
1.2.	The immediate liquidity ( $I_{li}$ )	2,30	2,47
2. Indicators Indebtedness			
2.1.	The coefficient of overall indebtedness ( $D_g$ )	0,03	0,04
2.2.	The coefficient of coverage of financial ( $c_f$ )	65,35	235,59
3. Indicators of profitability			
3.1.	The rate of economic returns ( $R_e$ )	0,23	0,35
3.2.	The rate of financial return ( $R_f$ )	0,26	0,38

Source: Balance sheet accounting (code 01) and the result patrimonial code (02) of the Technical University of Cluj-Napoca, in the years 2006 and 2007

From the calculations presented in Table 3, it can be observed that the indicator of immediate liquidity and the current values are greater than one. This indicated the existence of a revolving fund that provides net activity; the institution has sufficient assets to enable it to and to ensure the satisfaction of short-term obligations.

Take liquidity indicators contained values around the value of 3, which implies a value for a large measure of liquidity but is justified at a university since the largest share of revenue is made from funds from the Ministry of Education, Research and Youth.

A higher value of liquidity of a company showed the use of inefficient assets to generate profit. At the level of an university, could interpret the phenomenon through the accumulation of funds for equipment and storage for the funds received in good conditions of the process of

education.

It is established that the current liquidity indicator is higher by about 1 percent against the immediate liquidity (see Table 3), which can be explained by the influence of light given by existing stocks of materials and objects inventory at the end of year.

This phenomenon of increasing stock at the end of the year is determined by the allocation of funds at the end of the year, funds that cannot be carried over from one year to another and which are spent to purchase goods needed to education.

The coefficient of overall indebtedness must take values lower than one, because as the value is approaching one, the risk to which the institution is subject is high.

In the years 2006 and 2007, this indicator has recorded low values that demonstrate a lesser degree of indebtedness of the institution.

Because the rate of coverage of financial value recorded a significantly increased in 2007 compared to the year 2006 it can be say that the outcome patrimonial had a positive development regarding the financial costs that were recorded.

The economical capitalizatio showed a positively development from 2006 to 2007, and demonstrate the efficient use of assets which led to an increase in the operational result.

Financial capitalizatio was calculated and determined in Table 3, it achieving increased from one year to another, which demonstrates a good use of capital and the university at the level of the investigated years, leading to economic growth result.

The financial capitalizatio indicators increased in 2007 compared to 2006 with 0.12 percent that represents a positive evolution, a better use of assets and the capital.

## CONCLUSIONS

From the analysis of data from Table 1, it can be concluding that the Technical University in Cluj-Napoca has made a positive economic result, the year 2007 with an increase of ~ 2.37 times compared to the year 2006. This increase is due to the outcome of current activity, a result of operational and financial outcome of the work, respectively.

The existence of methodology for calculating economic performance indicators such as financial indicators allows:

- ÷ reporting of negative aspects that could be corrected;
- ÷ development of strategies based on financial information;

By calculating financial indicators, it was tried to conduct a review of the financial point of view at Technical University of Cluj-Napoca.

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