FINANCIAL PERFORMANCE INDICATORS – INSTRUMENTS IN LENDING DECISION MAKING

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1. Introduction

During the lending decision-making process, the economic and financial performance analysis of a company represents a critical supporting document according to which a credit may be granted or not.

The current global financial crisis has worsened the banks perception on credit default risk and in this case, the standards for financial health analysis and diagnosis. At present, banks asses the performance of a company according to quantity criteria (in terms of liquidity, solvency, profitability and financial balance) and quality criteria (characteristics of branch of activity, management quality, ownership structure).

The investigation and analysis based on these criteria aims at assessing the client's net worth and financial situation as accurately and thoroughly as possible. This happens because, when granting a credit, any bank assumes a credit risk, which can be mitigated by a careful evaluation of the client's performance and capability to repay the loan and the interest rate.

Out of these two categories of criteria used to determine a client's rating, the quantitative investigation based on the financial indicators of performance has the largest influence, contributing to shaping the customer profile and establishing the level of risk assumed by the bank.

2. Research Methodology

Measuring the performance of an enterprise is possible by *"using a wide range of economic indicators, each one having its own knowledge value and individual information capacity ...."*[1]. These measurements or economic and financial indicators are the quantitative forms which define the purpose of various activities, phenomena and processes carried out within the company.

A conceptual clarification of the role and the informational content of performance indicators is found in the book by M. Niculescu, who states that *"indicators are digital data, arising from an activity or action that can effectively contribute to enriching decisions to progress or putting them into practice "*[2]. In fact, most definitions mentioned in the economic literature regarding performance indicators agree on the numerical nature, quantifiable from a numerical point of view, for these mirror-instruments that measure the progress of an organization and their role in monitoring and managing performance in terms of objectives set out by shareholders and stakeholders.

[1] P. Ştefea, „Company results analysis", Miron Publishing House, Timişoara, 2002, preface/foreword
[2] M. Niculescu, „Strategic global diagnosis", Economică Publishing House, Bucureşti, 2005, page 47

From our point of view the performance indicators are instruments used for transposing the results from the company's key activities and actions into a numerical form, in order to evaluate the efficiency of the implemented strategies, the achievement of clearly set out objectives and substantiation of future decisions; performance indicators provide an overall view of the progress of a business, being the cornerstone of the decision-making process for any participant in the activity of a company.

In order to serve the decision-making process at all levels, performance indicators must meet a series of synthetic features. Schematically, these features can be described as follows:

Figure no. 1
Features of performance indicators
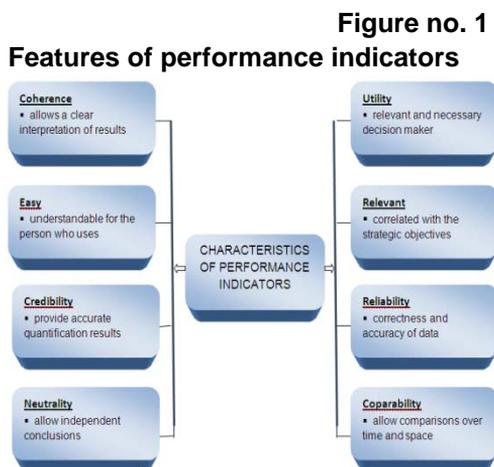
If we take as a starting point the quality requirements imposed to each indicator, that raises a question related to the principles to be met by each indicator separately, namely:

• *Relevance of measurement,* involves selecting those indicators correlated with the business objectives and that allow the assessment of the value and economic stability, creating value and future earnings potential;

• *Controllability,* the indicators that are used must be within the sphere of interest and / or action of the user;

• *Reliability,* according to which the same situation generates the same values for each indicator;

• *Accessibility and selectivity,* provides to financial information users the freedom of movement regarding the indicators used to reflect and manage the company's performance.

Within the banking system, performance indicators are instruments used in determining the reliability category the company falls into, respectively "the financial performance of the commercial enterprise that confirms the confidence it inspires to the bank when applying for a loan, in order to repay loans at maturity together with associated interest".[3]

The objective of the investigation on the economic and financial aspects that characterize the customer's activity is to determine a scoring that corresponds to the client's risk category. Depending on the cumulative score the bank takes a decision related to credit granting conditions.

2.1 Financial performance indicators: characteristics and composition

The number and exact type of financial indicators used to assess the creditworthiness of the firm differs from one bank to another, but a representative set of indicators includes:

•**level and structure indicators:** turnover, equity, return of the year (profit or loss), working capital, working capital requirements, net treasury, liquidity, solvency, leverage, assets turnover;

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[3]M. Achim, „Economic and financial analysis", Risoprint Publishing House, Cluj-Napoca, 2009, page 416

•**indicators of profitability and return;**

•**Indicators of risk:** interest coverage ratio.

Turnover represents the total sales of a company, both from production activities and selling activities. This indicator allows us to assess the results of the business activity in a very exact way, and it is only composed of elements that take the form of cash flows[4].

Equity - represents all the sources of funding of the company. In the context of credit granting decisions the net equity is the most important, which is determined by subtracting the stock value, the expenditures and other uncertain assets from the total equity.

Profit or loss of the year expresses the performance of the activity of the company. The first condition imposed by the bank to its customers is to have accounting profit.

The working capital characterizes the balance / unbalance condition of a financial company at a particular moment.

WC = permanent capital - fixed assets

If an effective financial management is performed, the permanent resources must ensure the full funding of the ongoing activity needs, and the surplus represents the positive working capital.

Working capital requirement (WCR) can be defined as "that capital that the company should own in order to finance stock and time lag between paying suppliers and other operating liabilities and collection of accounts receivable"[5].

WCR = (Inventories + Receivables) - short-term operating liabilities

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[4]Because of the accrual accounting legislated and practiced in our country, turnover indicates potential cash flows (income amounts that are recorded but not cashed in).
[5]M. Siminică „The company financial diagnosis", Sitech Publishing House, Craiova, 2010, page 86

Evolution of working capital requirement is influenced by several factors such as: type of activity, duration of operating cycle, the production costs, operating liabilities, turnover ratio for the main elements that constitute the working capital needs.

Net cash (NC) is an indicator of the short-term financial balance. Its level can be determined as the difference between:

NC = cash - current financial liabilities;
NC = cash assets- cash liabilities;
NC = working capital - working capital requirements

A positive level indicates a good financial management of the company, while a negative level may indicate the existence of short-term financial unbalance; permanent resources are insufficient to cover working capital needs.

Liquidity - Characterizes the ability of accompany to meet its payment obligations on a short-term by using liquid funds at its disposal. Liquidity is expressed by several rates:

•*Current liquidity* (CL) expresses the capacity of current assets to cover current liabilities of the company:

$$CL = \frac{Current\ assets}{Current\ liabilities} \cdot 100$$

In practice, the level of this rate should vary between 180% -200%.

•*Immediate liquidity* (IL) characterizes the capacity of high and average liquidity assets to meet current liabilities of the entity:

$$IL = \frac{Current\ assets - Inventories}{Current\ liabilities} \cdot 100$$

This rate is an important test for measuring the company's ability to meet short term obligations, its level should vary between 80% -100%.

•*Effective liquidity* (EL) reflects the ability of companies to repay outstanding debt from its own available cash:

$$EL = \frac{Available\ cash}{Current\ liabilities} \cdot 100$$

If the level of this rate is between 30% -100% it indicates a good financial security of the company with an optimum level of effective liquidity.

Solvency - reflects the company's ability meet financial obligations from its own sources. The most important rates used in assessing solvency are:

•General solvency expresses the company's ability to cover total liabilities from total assets:

$$GS = \frac{Total\ Assets}{Total\ liabilities} \cdot 100$$

•*Patrimonial solvency or* financial autonomy rate is determined as the ratio between shareholders equity and total equity:

$$PS = \frac{shareholder\ equity}{total\ equity} \cdot 100$$

Leverage rate is the ratio between liabilities and the company equity, and is calculated as follows:

•Global leverage rate, measures the ratio between total liabilities and equity of the company:

$$GLR = \frac{Total\ liabilities}{Equity} \cdot 100$$

•Financial leverage rate is determined as the ratio between financial liabilities and equity:

$$FLR = \frac{Financial\ liabilities}{Equity} \cdot 100$$

The assessment of the leverage rate can be done according to the following values:

Table 1. Leverage rate assessment table

Assessment	Global Leverage Rate	Financial Leverage Rate
Good	Up to 60 %	Up to 30 %
Satisfying	Between 60-100 %	Between 30-70 %
Insufficient	over 100 %	Over 70 %

Current assets turnover characterizes the efficiency with which these resources were used in the business activity. To determine the turnover the following indicators are used:

•*The average number of turnover cycles* (N), which expresses the average number of times that current assets go through all stages of the economic cycle in a given period

a) *The average number of turnover cycles for current assets:*

$$Nr = \frac{Turnover}{Net\ Current\ Asset\ Value}$$

b) *The average number of turnover cycles for stocks:*

$$Nr = \frac{Turnover}{average\ value\ of\ inventories}$$

•*Average duration of a cycle in days* (DD), which expresses the period of time required for current assets to go through all the stages of an economic cycle:

a) *Average duration of current assets turnover cycle in days:*

$$DD = \frac{Current\ assets}{Turnover} \cdot 365$$

b) *Average duration of inventory turnover cycle in days:*

$$DD = \frac{Inventories}{Turnover} \cdot 365$$

•*The average receivables collection period,* determined as the ratio

between the average value of accounts receivable and the turnover (including VAT):

$$CP = \frac{Average\ value\ of\ accounts\ receivable}{Turnover} \cdot 365$$

Profitability rates or margin rates, illustrates the business efficiency by making a ratio between the company's profit and the sales revenue (turnover). According to the several ways to measure and express the profit of a company, the profitability margin rates have been developed as follows:

• Gross margin on sales rate - this rate of commercial profitability of a company indicates the profit from sales of goods and services, according to the company's ability to control costs and achieve the optimum sales price. Gross margin on sales is calculated as the ratio between gross profit from sales and net turnover.

$$GMS = \frac{gross\ profit\ from\ sales}{net\ turnover.} * 100$$

• Gross profit margin rate- it corresponds to the ratio between the total gross profit and the turnover, the gross profit margin characterizes the overall efficiency of a business activity, namely, its ability to generate profits from sales.

$$GPM = \frac{Gross\ revenue\ of\ the\ period}{Net\ turnover} * 100$$

Rates of return are indicators of financial performance which express a company's ability to have profit from carrying out its business activity. The algorithm to calculate this indicator in theory and in practice consists of linking an indicator of outcome to a global activity flow indicator, thus taking several forms of expressing the return:

• Economic rate of return on assets, measures the efficiency of economic capital (total assets) allocated to the productive activity of the company.

$$ERRA = \frac{Gross\ profit;\ Operating\ profit;}{Total\ Assets} * 100$$

• Return on capital employed, expresses a company's ability to have profit from the capital employed in its business activity. Its level is determined as the ratio between a result indicator and the total amount of capital used to achieve this result.

$$RCA = \frac{Gross\ profit;\ EBIT;\ EBE}{Capital\ employed} * 100$$

• Return on equity is an indicator that shows the efficiency with which a company's equity is used and the degree to which the shareholders' investment brings benefits to them:

$$ROE = \frac{Net\ Profit}{Equity} * 100$$

Interest coverage ratio is a financial and economic indicator of risk that measures the ability of companies to pay interest costs.

$$IC = \frac{Interest\ costs}{Gross\ profit;\ Tunover}$$

2.2. Analysis of performance indicators in assessing creditworthiness of Synchro Comp SRL company according to Raiffeisen Bank regulations

SC Synchro Comp Ltd is a small company (with a turnover of up to 2 million EUR and 5 employees), which has as main activity the manufacture of instruments and appliances for measuring, checking and control. The type and purpose of the requested bank

loan is :to fund the current activity, the amount requested: 30,000 EUR.

Raiffeisen Bank situates economic enterprises within a creditworthiness category according to the scoring of performance financial indicators (quantity criteria) and the scoring of non-financial indicators (quality criteria).

The Raiffeisen Bank analysis model includes the following quantity criteria, with the following values:

Table 2 Analysis of creditworthiness according to Raiffeisen Bank

Criteria to assess	Percentage	Values	Score
General liquidity	18%	. > 1.5 1.2 to 1.5 1.0 to 1.2 0.8 to 1.0 <0.8	1 2 3 4 5
Solvency	18%	. > 1.5 1.25 to 1.5 1.0 to 1.25 0.8 to 1.0 <0.8	1 2 3 4 5
Operating profit margin	12%	(10) 7-10% 3-7% 0-3% <0%	1 2 3 4 5
Interest Coverage	18%	4 3-4 2-3 1-2 <1	1 2 3 4 5
Equity ratio	9%	> 60% 50-60% 30-40% 20-30% 20	1 2 3 4 5
The overall risk	75%.	-	-

Source: Raiffeisen Bank lending rules
* The difference up to 100% is represented by the quality criteria

The level of financial performance indicators stated in the Raiffeisen Bank regulations regarding the analysis of creditworthiness is determined using the following formulas:

General liquidity = Current assets / Current liabilities;
Solvency = Total assets / Total liabilities;
Operating profit margin = Operating Profit / net turnover * 100;

Interest Coverage = Operating profit / interest expenses;
Equity ratio = equity / total assets

After determining these indicators and the corresponding assessment according to Raiffeisen risk standards, a company applying for a loan can be classified into the following categories of financial creditworthiness:

Table 3 Categories of creditworthiness according to Raiffeisen

* Client score total result	Client scoring (financial creditworthiness)
1,00 – 2,00	A
2,01 – 3,00	B
3,01 – 4,00	C
4,01 – 4,50	D
4,51 – 5,00	E

Source: Raiffeisen Bank lending rules
*The scoring that was calculated cumulates the quantity criteria score and the quality criteria score.

The level of these indicators was determined for two consecutive balance sheets, and scoring results for SC Syncho Comp SRL have the following values:

Table 3 Analysis of creditworthiness for SC Synchro Comp company

Criteria to assess	Percent-tage	2007	2010	2009	2010
General liquidity	18%	17.1	9.4	6.2	3.2
Score	-	1	1	1	1
Solvency	18%	18.5	11.2	8.4	4.3
Score	-	1	1	1	1
Operating profit margin	12%	33%	21%	10%	8%
Score	-	1	1	2	2
Interest Coverage	18%	285	104	63.4	27.4
Score	-	1	1	1	1
Equity ratio	9%	72%	41%	51%	40%
Score	-	1	3	2	2
Total Score	.	0.75	0.93	0.96	1.05

After applying the scoring system practiced by Raiffeisen Bank for quantity criteria, SC Synchro Comp proves to have a good financial performance during

all four years that were analyzed, thus falling into a higher category of creditworthiness. The score that the company receives after the quantity analysis must be combined with quality analysis regarding the nature of the object of activity, the management quality and its ownership structure, aspects that account for 25% of the reliability analysis conducted by the bank.

3. Conclusions

At present, banks that are active in the Romanian market take decisions on granting a credit to a legal entity based on solid assessment criteria regarding the position and performance of the company's activity in terms of both financial and non-financial aspects. In this context, financial performance indicators are essential tools of analysis of a customer's creditworthiness, the information they provide helps the bank in shaping the customer profile in terms of liquidity, solvency and profitability as well as the client's ability to repay the loan. Customizing the calculation and assessment methodologies for financial indicators of performance on the method that Raiffeisen Bank uses in assessing the creditworthiness of its customers, has brought us to the conclusion that the bank gives increasing importance to quantity-related aspects of the company's activity (with a percentage of 75% in the analysis of creditworthiness) out of which the criteria regarding liquidity, solvency and risk incurred in relation to the customer are considered essential (each of these criteria with a total percentage of 18% within the analysis). Depending on the total score that the client receives regarding the two aspects examined by the bank (financial and non-financial indicators of performance), the client falls under a certain category of financial creditworthiness, according to which the credit granting conditions are determined. After analyzing its financial situation, SC Synchro Comp has received a very good score, thus meeting the quantity conditions for a loan from Raiffeisen Bank.

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