The Study of Economic and Financial Indicators Reflected in the Accounting of a Company

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Abstract:

Economic-financial analysis as a systematic and methodical study of accounting and financial information on the company, to know its financial situation and understand its evolution, uses in the general methodology, a series of specific tools and means adapted to the purpose of the internal or external user of the diagnosis financial. The own method of the economic-financial analysis, includes a set of methodological steps and technical calculation procedures in order to establish and quantify the causal relations between the studied indicators and the determining factors. Indicators are an indispensable working tool for financial activity and implicitly for the development of the microeconomic decision-making act.

Keywords: economic and financial indicators; procedures; analysis; economic rates;

JEL Classification: G32; M11; M41.

Introduction

In order to make optimal decisions, which ensure the organization's development in the economic environment and capitalize on the opportunities, it is necessary to perform an analysis at all times and not only in conditions where phenomena with a negative impact on the organization occur.

The diversity of companies, the technological processes that take place within them, as well as the existence of links between the subsystem and the company's sectors of activity, have led to the need to assess the activity of any company through a set of indicators, which are usually calculated for well-defined periods, in accordance with the organization of the information system. In the design and development of the microeconomic financial process, a special emphasis is placed on the system of indicators built for this purpose, as well as on the concrete ways of using them, aiming especially at controlling this process.

In this paper we will focus on the study of economic and financial indicators in a bakery and pastry company. In this sense, we will present the company's balance sheet in the dynamics of 2017-2019. At the beginning we will determine the net assets for the years 2017, 2018 and 2019, reflected by a table. Next we will analyze the patrimonial structure of the company. For this we will process the data from the balance sheet and we will summarize them in a table for calculating the asset structure rates: The ones presented in the table will be illustrated graphically and commented in several graphs.

1. Economic and Financial Indicators Reflected in the Accounting

The main source of information about financial indicators of business activities is the financial statements of a company; basing on them there is performed the evaluation of the company's business activities and financial status. The evaluation of small companies' business performance and financial status have a significant role in making financial managerial decisions, as it help assessing the risks and potential benefits planning the perspective performance of the company.

The financial statements translate the various business activities of the company into a set of more or less objective figures, which, however, provide us with valuable information about the company's performance, about its possible problems and about its future potential.

An important position within the financial diagnosis and the main instruments for measuring performance are financial indicators. An indicator is "a measure which expresses numerically one aspect or a group of aspects which characterize a phenomenon, a process or an economic activity, defined in time, space or organizational structure" (Buglea 2004).

There are many categories of people interested in the financial statements of a company, starting from the managers themselves, and continuing with its suppliers - business partners, creditors, investors and, last but not least, state institutions. Of course, the type of analysis differs significantly depending on the interest of each entity:

- internally, managers must know the current financial position of the company (performance and problems) but must not stop here, their role continuing with the functions of planning (through projections of financial statements) and control;
- a supplier is primarily interested in the company's liquidity, because its rights are generally short-term and then the company's ability to pay is best reflected by liquidity indicators;
- a creditor who usually borrows in the medium or long term against a remuneration, is more interested in the company's ability to generate cash flow in the medium and long term in order to cover the debt service. In this case, they will analyze in detail the capital structure of the company (nature of financing sources), the way they are used (asset structure), the cash conversion cycle and the evolution of profitability.

Investors are interested in the evolution of profitability, volatility or stability and its trend over time.

The financial documents used in the financial analysis are:

- the Balance Sheet, which highlights the assets, liabilities and capitals of a company at a certain time (month, quarter, semester or year);
- Profit and Loss Account, which reflects the accumulated income and expenses in a certain period of time (a month, quarter, semester or year);
- the checking balances, from which the accounting balance sheet and the Profit and Loss account valid at the date of the respective balance sheet can be recreated.

Using certain elements contained in these financial statements, a series of financial indicators can be calculated that allow the analysis of the financial situation of a company at a given time and its comparison with the specific reports of the industry to which it belongs.

In performing this approach, it is recommended:

- following the evolving financial indicators (for at least 2 relevant periods) because the trend in the financial evolution of the company is equally important, providing signals to the analyst;
- tracking the elements in the Balance Sheet as a percentage of Total Assets and those in the Profit and Loss Account as a percentage in Total Sales. The observation of each balance sheet element in relative terms (as percentages) easily reveals the trends in the "hot" areas of the analysis, such as: profitability, liquidity, solvency, indebtedness, composition;
- comparing the levels obtained with those of companies of similar level in the same industry.

Financial rates are indicators used to assess the performance and financial position of a company. Most of these economic and financial indicators are calculated based on the information provided by companies in the financial statements. The usefulness of these economic-financial indicators consists both in highlighting a trend, and especially in the possibility that the analyzed company can be compared with other companies active in the same sector. At the same time, there are financial indicators that help predict a possible future bankruptcy.

Economic and financial indicators facilitate working with a high volume of data in an organized manner.

Figure 1 shows the role of financial indicators in improving the company's performance indicators and how an organization can use financial results and capacity, having consecutive steps in a closed cycle (Kotane and Kuzmina-Merlino 2012).

Figure 1. Continuous quality improvement using financial indicators
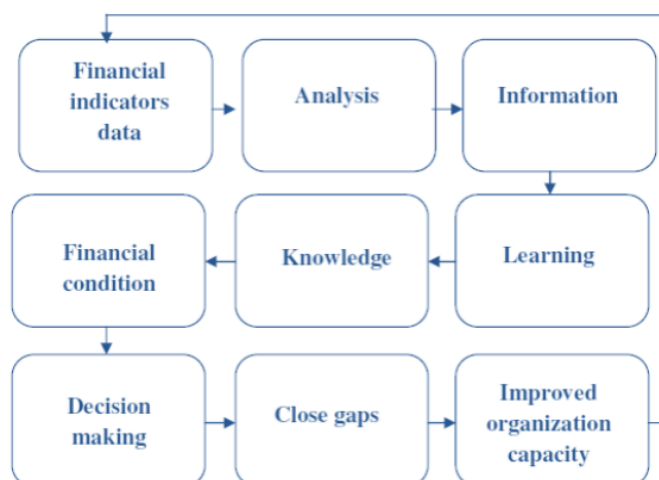
The main economic and financial indicators are detailed below.

Liquidity indicators measure the ability of companies to meet their short-term obligations, using current assets (the most liquid) and liabilities with a maturity of less than one year. The necessary data can be found in the balance sheet, as follows:

- Current Ratio = Current Assets / Current Liabilities (<1 year);
- Immediate liquidity (Acid test indicator: Quick Ratio) = (Current assets Stocks)/Current liabilities (<1 year);
- Cash Ratio = Cash and bank accounts + Short-term investments/Current liabilities;
- Coverage of daily expenses = (Cash + Short-term investments + Receivables)/Average daily expenses;
- Cash conversion cycle = Inventory turnover period (DIO) + Debt turnover period - customers (DSO) - Credit turnover period - supplier (DPO).

Risk / debt indicators:

- Interest coverage = Profit before interest and income tax (EBIT) / Interest expense
- Overall Debt Rate = Total Debt / Total Assets
- Leverage = Total Liabilities / Total Assets
- General solvency ratio = Total assets / Current liabilities

Activity indicators (management) reveal the efficiency with which a company uses its assets:

- Inventory turnover = Cost of sales / Average stock (no. of times);
- Inventory Outstanding (DIO) = Average stock / Cost of sales * 365 (number of days);
- Debt turnover - customers = Turnover / Average customer balance (number of times);
- Debt turnover - customers (Days Sales Outstanding - DSO) = Average customer balance / Turnover * 365 (number of days);
- Credit turnover - supplier = Acquisitions of goods / Average balance of suppliers (no. of times);
- Duration of credit rotation - supplier (Days Payables Outstanding - DPO) = Average balance of suppliers /Purchases of goods * 365 (number of days);
- Rotation of fixed assets (Turnover in days) = Turnover / Fixed assets (365 / Rotation of fixed assets);
- Rotation of current assets (Turnover in days) = Turnover / Current assets (365 / Rotation of current assets);
- Total asset turnover (Turnover in days) = Turnover / Total assets (365 / Total asset turnover).

Profitability indicators provide information about the efficiency with which a company uses its resources to generate profit.

The performance of a company is associated to its capacity of obtaining profit, or generally is mostly associated to its profitability, so that profitability indicators are widely accepted to measure performances. Profitability indicators may be expressed through their absolute values under the form of results, or through their

relative values under the form of a ratio (Monea and Guță 2011, 208). Making a long-term profit is vital both for the survival of the company and for the benefits to shareholders or associates:

- Return on capital employed = Profit before payment of interest and income tax (EBIT) / Capital employed;
- Operating profit margin = Operating profit (EBIT) / Turnover * 100;
- Gross sales margin = Gross sales profit / Turnover * 100;
- Net sales margin = Net profit / Turnover * 100;
- Actual tax rate = Tax expense / Gross profit (EBT) * 100;
- Economic profitability = Net profit / Total assets * 100;
- Financial profitability = Net profit / Equity * 100;
- Rate of return on resources consumed = Net profit / Total expenses.

Dividend policy indicators:

- Dividend Yield: DIVY = Dividend per share (DPS) / Price per share;
- Dividend Allocation Rate (Payout Ratio) = Dividends Per Share (DPS) / Profit Per Share (EPS);

Other indicators:

- Financial autonomy rate = Equity / Permanent capital;
- Inventory financing rate = Working capital/Inventories or (Permanent capital - Fixed assets) / Inventories;
- Equity ratio to fixed assets = Equity / Fixed assets.

2. Use and limits of economic and financial indicators

In order to perform a relevant analysis based on financial rates, the following aspects must be taken into account, when we should refer to the limits of using the indicators describe above:

- A reference point is always needed, regardless of whether it is historical values obtained by the company, forecasts or values calculated for other companies with similar object of activity;
- The analysis based on a single indicator can lead to erroneous interpretations, being recommended the study of several rates in order to obtain a correct image of the position or financial performance of the company;
- The use of the balance values from the end of the year to the calculation of the financial indicators can lead to obtaining some errors given by seasonal factors, therefore it is recommended to use the average values;
- The financial rates are influenced by the existing accounting limitations, being possible that in case of performing calculations based on different standards some discrepancies will result.

3. Case study Regarding the Analysis of Economic-Financial Indicators

3.1. Brief Presentation of the Bakery and Pastry Company

For the analysis of the economic-financial indicators, we studied a bakery and pastry company, whose object of activity is the manufacture of bread, cakes and fresh pastries.

The general objectives of the company are: offering fresh and quality products; marketing products at the lowest price; identifying potential customers in the market; attracting large segments of consumers; providing financial and material resources necessary for the current and future development of the activity; investments in internal infrastructure, information system, technology and equipment for the best possible product quality; real-time tracking of profitability at the level of product, manufacturer, logistics unit, distribution channel, customer, transaction; in-depth knowledge of competition: shareholding structure, territorial organization, technical capacity, relations with producers, product portfolio, customer portfolio, trade policy, balance sheet data, turnover monitoring, data within the organization, market initiatives, media relations, etc., in order to adopt the optimal measures of effective control.

The company's pricing strategy is an important element through which one can gain a competitive position in the market. Prices are the most transparent part of the business and often play a vital role in the survival of the business. The bakery and pastry company proposes through its pricing policies some main and secondary objectives regarding its existence, volume of activity, profitability, image imposed on the market:

- in terms of existence, the first goal that a company aims at, especially when it is in an unfavorable competitive position, is that of survival;
- the volume of activity that corresponds to a company producing material goods or services, is highlighted by the turnover;

- when the costs, respectively the benefits are difficult to estimate, or if the aim is to expand the share of the own market, the maximization of the turnover becomes the fundamental objective, which is also possible through measures to reduce the prices;
- maximizing the speed of penetration of the company on the market is a very close objective related to the previous one, which can be achieved primarily by practicing penetration prices, which are often low only during periods when penetration is the primary concern of the company;
- the most complex objective that a company can set itself is to maximize profit;
- another goal that a company can set and achieve through pricing policies, practicing their highest levels (which is associated, in the eyes of consumers, with high levels of product quality), is to maintain or even improve the image he has imposed on his customers.

The products of the bakery and pastry company are designed to meet the needs of consumption, so they must reach consumers in a very short time after production. Therefore, there is a space and time that separates the end of the production process and the entry of products into consumption. Along the way, a series of operations and actions take place that are defined as the field of distribution. For this company, the distribution objective has as main objective the reduction of the time that the products go through the producer-consumer circuit.

It is considered that if at a point of sale, a consumer does not find a certain product of the company, then the opportunity for the product to be bought was lost, so the sale decreased. Distribution in this situation was not achieved, consumption decreased and hence the reduction of profit. Also, all the efforts made on the line of product promotion must be closely intertwined with the efforts in the field of distribution in order to reach the final goal, the increase of sales.

The company distributes its products on the market with the help of its own means of transport specialized in such operations. The company ensures the distribution of the products either weekly - for a higher efficiency of the distribution, exact daily supply graphs were drawn for each client; or on request - customers who run out of stock have been able to request a supply of goods by phone before the pre-determined delivery day. The way services are promoted can lead to the rise or destruction of a business. Advertising and promotion are the lifeblood of a business and should be treated as such. The way of promoting the studied society is done through social networks that are constantly expanding.

3.2. Analysis of Economic and Financial Indicators

As the indicators represent an indispensable working tool for the financial activity and implicitly for the development of the microeconomic decision-making act, we will analyze the net asset, the patrimonial structure of the company, based on the data from the balance sheet and we will calculate the asset structure rates.

We started with the analysis of net assets for the years 2017, 2018, 2019, whose situation was presented using the data contained in a table. The analysis of the table shows that, in the analyzed period 2017-2019, the net assets had an ascending evolution. The increase in net assets has the effect of increasing profitability and financial independence. Next, we made an analysis of the patrimonial structure of the company, processing in this sense the data from the balance sheet, data that we presented in a table, for the calculation of the asset structure rates:

The data in the table were illustrated with the help of the following figures: the rate of fixed assets, which is increasing throughout the analyzed period; the rate of current assets that has a decreasing trend; the inventory rate which, in 2017, reaches above the maximum accepted value of 50%, being necessary an improvement in sales, and in 2018 there is a decrease in the inventory rate compared to 2017; the rate of receivables that in 2018 increased compared to 2017; the rate of cash which in the analyzed period remains below the optimal value (10%), this reflecting the efficient use of cash. In Table 1 the balance sheet of the bakery and pastry company is presented, in the dynamics of the years 2017-2019.

Table 1. Simplified balance sheet for 2017, 2018 and 2019

The element's name	31.12.2017	31.12.2018	31.12.2019
Intangible assets	0	0	0
Tangible fixed assets	351.698	1.048.230	1.580.774
Financial assets	0	0	0
Fixed assets	351.698	1.048.230	1.580.774
Inventories	496.740	310.226	340.098
Claims	109.921	229.977	309.076
Short-term investments	0	0	0
House and bank accounts	2.747	79.812	149.795

The element's name	31.12.2017	31.12.2018	31.12.2019
Current assets	609.408	620.015	798.969
Prepayments	833	0	321
Short term debts	811.689	291.227	525.229
Net current assets less net current liabilities	-201.448	328.788	274.061
Total assets less current liabilities	150.250	1.377.018	1.854.835
Long-term debt	59.162	600.846	973.182
The element's name	31.12.2014	31.12.2015	31.12.2016
Provisions	0	0	0
Advance income	0	0	0
Capital	112.128	112.128	112.128
Revaluation reserves	113.849	241.788	241.788
Reserves	801	801	801
Profit or loss from reporting	409.785	412.159	406.812
Distribution of profit	0	0	0
Equity	91.088	776.172	881.653

Source: By authors

3.2.1. Analysis of Net Assets

The patrimonial value of a company coincides with the net accounting assets, respectively with the own capitals determined as difference between the total assets and the total contracted debts. Compared to equity, net accounting assets are more restrictive as they exclude regulated subsidies and provisions. Therefore, this indicator better reflects the value of the feasible asset at a given time, which is of interest to both the owners, shareholders and creditors of the enterprise, especially in case of its liquidation.

In the case of the analyzed company, the net assets are presented according to the data in the following table:

Table 2. Determination of net assets

No	Indicators	Years			Indices (%)		
		2017	2018	2019	2017	2018	2019
1.	Total assets	961.939	1.668.245	2.380.064	100.00	173,42	142,66
2.	Total debts	870.851	892.073	1.498.411	100.00	102,43	167,97
3.	Advance income	-	-	-	-	-	-
4.	Net assets	91.088	776.172	881.653	100.00	852,11	113,59

Source: By authors

Analyzing the table, we find that, in the analyzed period 2017-2019, net assets have an upward trend, which means an increase in shareholders' wealth. In 2018, the net asset registers an increase compared to 2017 by 752.11%, and in 2019, an increase by 13.59% compared to 2018.

Positive and rising net assets reflect sound economic management. This indicates the achievement of the major objective of financial management, namely, maximizing the value of equity, of the net assets financed from these capitals. The increase in the net position (net assets) has the effect of increasing profitability and financial independence.

3.2.2. Analysis of the Patrimonial Structure

The analysis of the patrimonial structure is performed with the help of the rates calculated as a ratio between an element/group of balance sheet elements and the total of the asset/liability, group/subgroup to which it belongs or another element/group of elements.

Structure rates highlight the financial characteristics of the enterprise, such as: the ability of assets to be transformed into liquidity, the autonomy and financial independence of the enterprise, the quality of the short-term financial balance or the financial (financing) structure of the enterprise.

▪ Asset structure rates

In order to analyze the detailed structure of the company's assets, the information in the balance sheet was processed and summarized in Table 3, Calculating the asset structure rates.

Table 3. Calculation of asset structure rates

Asset structure rates	Calculation formula	2017	2018	2019
1. Rate of fixed assets	$\dfrac{Fixed\ assets}{total\ active} \times 100$	36,56%	62,83%	66,42%
2. Current assets rate	$\dfrac{Current\ assets}{total\ active} \times 100$	63,35%	37,16%	33,57%
2.1. Inventory rate	$\dfrac{Inventories}{Total\ active} \times 100$	51,64%	18,60%	14,29%
2.2. Debt rate	$\dfrac{Receivables}{Total\ active} \times 100$	11,42%	13,78%	12,98%
2.3. Cash availability rate	$\dfrac{Cash\ availability}{Total\ active} \times 100$	0,28%	4,78%	6,29%

Source: By authors

Those presented in the previous table will be plotted and commented on in the following figures.
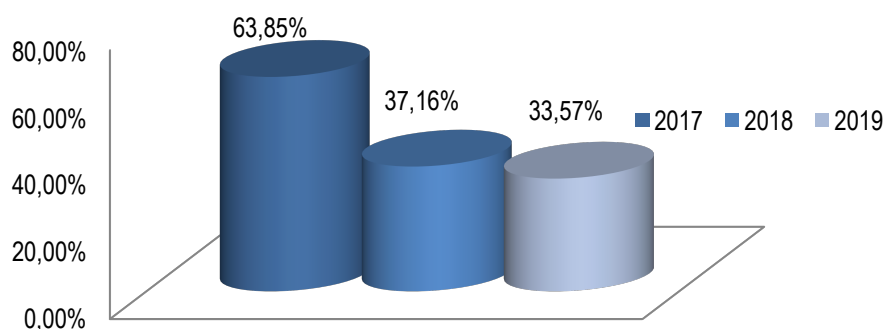
Figure 2. Rate of fixed assets
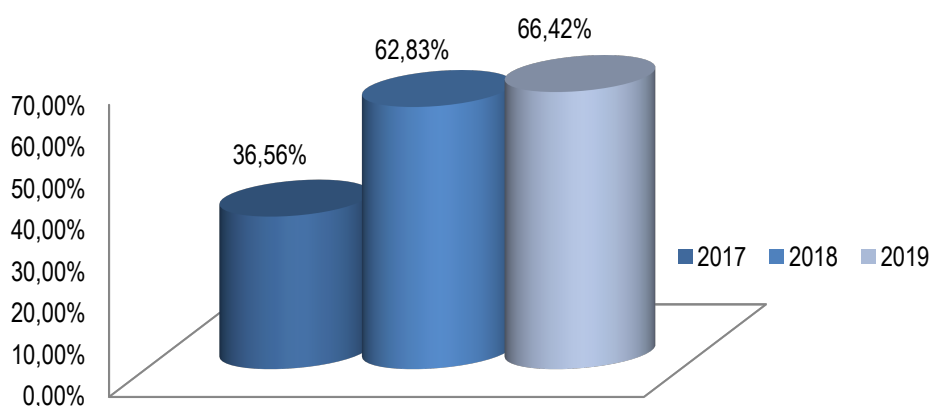
Source: By authors

Based on the chart above, it is observed that the rate of fixed assets is increasing throughout the analyzed period, from 36.56% in 2017, to a level of 66.42% in 2019, because the company has developed in those years' investments to raise the level of services offered on the market.

Figure 3. Current assets rate

Source: By authors

It is noted that, for the analyzed period, the current assets rate has a decreasing trend, only in 2017 it is above the minimum accepted level, of 40%, and in 2018 and 2019 there is a decrease below the minimum accepted level. From this point of view, the situation is unfavorable to the company, as the increase in the value of the total assets is mainly due to the increase in fixed assets and not current assets.

Figure 4. Inventory rate
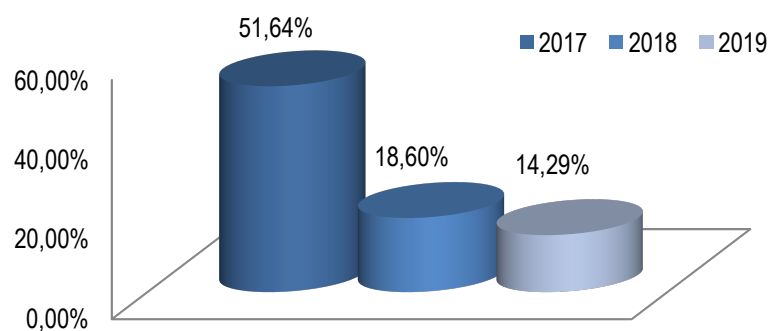
Source: By authors

Analyzing this graph, it is found that, in 2017, the inventory rate reaches above the maximum accepted value of 50%, being necessary an improvement in sales (*e.g.* reduction of prices, offers), in order to reduce the quantity of stocks. In 2018, there is a decrease in the inventory rate by 33.04% compared to 2017, due to the faster growth of inventories compared to current assets.

Figure 5. Debt rate
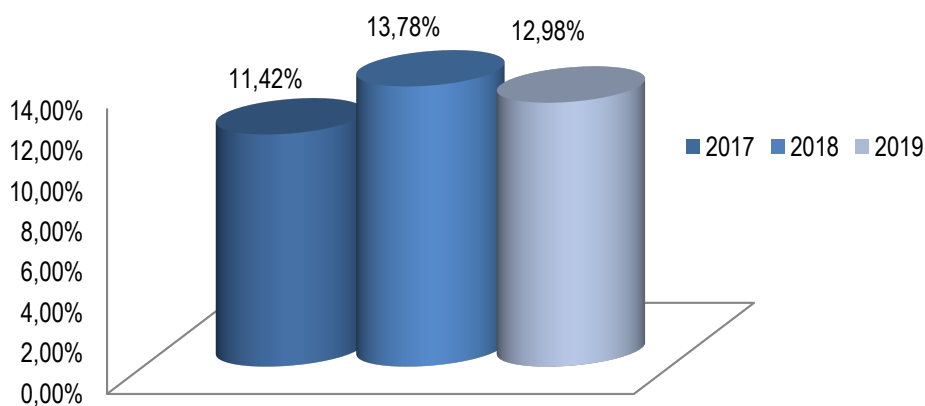
Source: By authors

From the graph above, it is noted that the receivables rate increased in 2018 compared to 2017 by 2.36%, illustrating the increase in the share of receivables in total current assets. In 2017, the low value of receivables is due to the high level of cash that the analyzed company holds in total current assets.

Figure 6. Cash availability rate
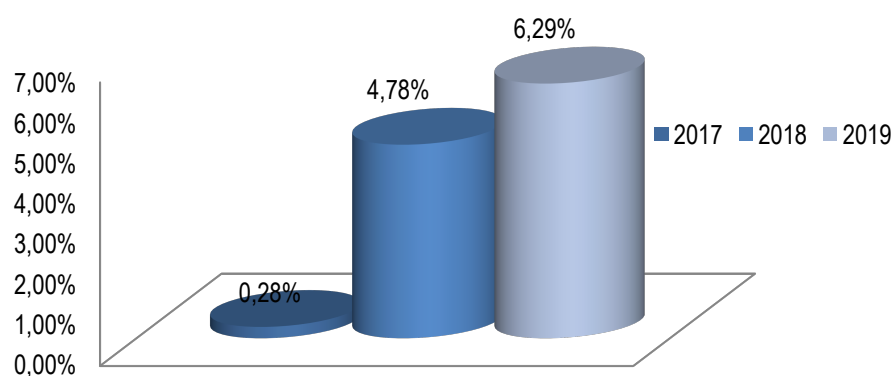
The cash flow is 0.28% in 2017 and increases by a percentage of 4.5% the following year. During the analyzed period, the rate remains below the optimal value (10%), this reflecting the efficient use of cash.

Conclusions

Microeconomic analysis through its methods and procedures is an indispensable tool for the managerial activity of the company, as it offers practical solutions to prevent and eliminate the factors of destructive action and creates on this basis favorable conditions for the unrestricted manifestation of factors with positive influence.

The reality of the recorded financial information will follow the trust of the shareholders in the activity of the company and will attract new investors and customers willing to enter into business with it. During the paper we conducted a case study on the analysis of economic and financial indicators of a bakery and pastry company. In this sense, we analyzed the economic-financial indicators of the company, with the help of the balance sheet for the years 2017, 2018, 2019. We started with the analysis of net assets for the years 2017, 2018, 2019, whose situation was presented using the data contained in a table. The analysis of the table shows that, in the analyzed period 2017-2019, the net assets had an ascending evolution. The increase in net assets has the effect of increasing profitability and financial independence. Then, we made an analysis of the patrimonial structure of the company, processing in this sense the data from the balance sheet, data that we presented in a table, for the calculation of the asset structure rates:

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