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# ANALYSIS OF FINANCIAL STATEMENTS AS AN INSTRUMENT FOR PREDICTING INSOLVENCY: A CASE STUDY OF A PUBLICLY TRADED COMPANY IN THE PROCESS OF EXTRAJUDICIAL REORGANIZATION

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## ABSTRACT

The effective analysis of financial statements and economic-financial indicators can be a great ally for companies that seek to identify financial problems early, since by identifying possible difficulties in advance, it is possible to avoid insolvency. Thus, the objective of this work is to analyze the performance from 2021 to 2023 of a large retail company, in addition to understanding the main aspects of Law 14.112 of 2020, presenting the types of financial statements and economic-financial indicators that contribute to the early identification of financial difficulties and analyzing the financial statements released by this organization. With this purpose, through a qualitative research, a bibliographic research was carried out to analyze the theoretical concepts used in this article, characterizing the research as explanatory. In addition, the documents released by the studied company were analyzed to verify its financial and economic situation between the years 2021 and 2023, classifying this research as documentary and case study. The results showed that since 2021 the statements and indicators pointed out that the company was becoming unable to meet its payments and the state of insolvency was imminent. It is concluded that the request for out-of-court reorganization announced in 2024 could have been avoided through effective and early analysis of the data and with assertive decision-making by the organization's management.

**Keywords:** Financial Statements. Management Accounting. Economic and Financial Indicators. Insolvency. Extrajudicial Reorganization.

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## INTRODUCTION

Analyzing the current scenario, there are several companies facing economic and financial difficulties, some of them even reaching insolvency, characterized by insufficient financial or patrimonial resources to settle their debts (Brasil, 2020).

As a result, one of the alternatives used to reverse this situation is through Law 14,112 of 2020, which regulates the processes of judicial reorganization, extrajudicial reorganization, and bankruptcy of the business company, in addition to allowing the company in a state of insolvency to temporarily suspend the collections of its creditors while it presents a strategy for financial recovery.

In this context, the research problem of this article arises: How to use the analysis of financial statements and economic-financial indicators to identify in advance the financial difficulties of a company?

Martins (2023) states that judicial reorganization has significant social implications for companies' stakeholders. These implications are the result of the increase in the term for the payment of debts, impacting the cash flow of its creditors and leading to layoffs of employees, which affects society and the economy as a whole. Thus, the theme of this study is of great importance since the effective analysis of financial statements and economic-financial indicators becomes a great ally for companies to identify imminent difficulties early.

> The analysis of balance sheets must be understood within its possibilities and limitations. On the one hand, it points out problems to be investigated rather than indicates solutions, on the other hand, as long as it is properly used, it can become a powerful "control panel" of the administration. (Iudícibus, 2017, p. 87).

A relevant case in this regard happened with a publicly traded retail company with great economic relevance in Brazil and which started in April 2024 an out-of-court reorganization process in order to extend the amortization of the debt with its main creditors, which totals R$ 4.1 billion.

The general objective of the work is to analyze the performance from 2021 to 2023 of this company, in order to identify the indicators that pointed to the need for future recovery and that could have been used in that period for a possible reversal of this situation.

Specifically, the research consists of: understanding the main aspects of Law 14.112 of 2020, presenting the types of financial statements and economic-financial indicators that contribute to the early identification of financial difficulties and analyzing the financial statements disclosed by the company studied.

The article is structured as follows: after this introduction, the method that will be used in this research is presented. Then, the theoretical development on the subject will be carried out and finally, the results and final considerations will be presented.

## METHOD

The article was carried out using the qualitative approach, since the data presented by the studied company was analyzed, in order to understand the reason that resulted in the current financial difficulties. Nielsen, Olivo and Morilhas (2017, p. 142) confirm the previous arguments in "the objective of this type of research is to achieve a qualitative understanding of reasons and motivations for the occurrence of a certain phenomenon".

As for its objectives, it is classified as explanatory, because initially a study was carried out on the data disclosed by the company and finally an analysis was carried out showing how these data could have been used effectively to reverse the current scenario of the organization.

When it comes to the technical procedures, the work is characterized by documentary and case study, as a bibliographic research was carried out through books and the Google Scholar database, to understand the main aspects of the financial statements and financial-economic indicators and later documents released by the company were analyzed in order to study its financial and economic situation.

## THEORETICAL DEVELOPMENT

### LAW NO. 14,112, OF DECEMBER 24, 2020

Law No. 14,112/2020 aims to update the legislation regarding judicial reorganization, out-of-court reorganization, and bankruptcy of entrepreneurs and business companies, in addition to amending the laws previously instituted (Brasil, 2020).

For Machado and Leão (2022, p. 22):

> The recent amendments to Law No. 11,101/2005 through Law No. 14,112/2020, came to modernize the Bankruptcy and Judicial Reorganization system and to facilitate the uplift of companies, mainly consolidating the principles of company preservation and worker protection.

Martins (2023) states that judicial reorganization is a tool whose main objective is to overcome the economic crisis faced by companies, but it can also be used as a measure to avoid future crises.

Throughout the judicial reorganization process, the judiciary is present and mediating the development, since the debtor must present the reorganization plan in court, after it is

granted, any creditor mentioned in the plan may present objections and the judge will call a general meeting to deliberate on the case (Brasil, 2005).

In the out-of-court reorganization process, the debtor negotiates directly with the creditor and subsequently executes the approval in court.

> Article 163. The debtor may also request the approval of an out-of-court reorganization plan that binds all creditors covered by it, provided that it is signed by creditors representing more than half of the credits of each type covered by the out-of-court reorganization plan. (Brazil, 2020)

Thus, with the most recent law, the out-of-court reorganization process has become the most attractive model. Machado and Leão (2022, p. 37) confirm the previous arguments when they state "The reform brought a significant improvement to out-of-court reorganization, which began to be used more frequently, constituting an important tool to prevent judicial reorganization".

## FINANCIAL AND ACCOUNTING STATEMENTS

The financial and accounting statements present in a summarized and organized way the facts recorded by accounting. For corporations and large companies, their statements are called financial, as they are mandatorily published in order to render accounts, while for other companies they are called accounting (Iudícibus, 2017)

Souza (2023, p. 3) reiterates that "All Financial Statements can be analyzed and play a fundamental role in understanding the financial situation of a company."

> The purpose of financial statements is to provide information on the entity's financial position (balance sheet), performance (income statement) and cash flows, which are useful to users for economic decision-making. (Iudícibus, 2017)

The Balance Sheet (BP) represents the company's financial and equity position in a clear and organized way. In its preparation, the elements of the same nature are grouped and classified into Assets, Liabilities and Shareholders' Equity (Silva, 2019)

Table 1: Balance Sheet Structure Template

| Active | Liabilities + Equity |
|---|---|
| Current Assets | Current liabilities |
| Noncurrent Assets | Noncurrent Liabilities |
| Achievable in the long term | Equity |
| Investment | Capital Social |
| Asset | (-) Expenses with Equity Issues |
| Intangible | Capital Reserve |
| | Recognized Granted Options |
| | Profit Reserves |
| | (-) Treasury Shares |
| | Equity Valuation Adjustments |
| | Cumulative Conversion Adjustments |

| | Accumulated losses |
|---|---|

Fonte: Silva, 2019, p. 43

The Income Statement (P&L) is the representation of the company's revenues and expenses in a given period, presented vertically, in a deductible manner, that is, initially the revenue is reported and expenses are subtracted, resulting in profit or loss (Iudícibus, 2017).

According to Assaf Neto (2023, p. 75):

> The Income Statement for the Year (P&L) aims to provide, in a schematized manner, the results (profit or loss) earned by the company's operations in a given fiscal year, which are transferred to shareholders' equity accounts. The profit (or loss) is the result of revenues, costs and expenses incurred by the company in the period and appropriated according to the accrual basis, that is, regardless of whether these amounts have been paid or received.

The Cash Flow Statement (DFC) "indicates the origin of all the money that entered the Cash, as well as the application of all the money that left the Cash in a given period, and also the Financial Flow Result" (Iudícibus, 2017, p.210).

According to Silva (2019), the lack of cash generation to finance the company's operations is what has led many of them to bankruptcy proceedings, reinforcing the need for DFC analysis.

## LIQUIDITY RATIOS

Liquidity ratios are used to endorse the company's ability to pay off its commitments, that is, it evaluates and classifies its ability to pay in the long term, short term, or immediate term (Marion, 2023).

There are four liquidity ratios: immediate, dry, current and general, as shown in the table below.

Table 2: Liquidity Ratios

| Index | Formula |
|---|---|
| Liquidez Imediata (LI) | $\frac{Caixa\ e\ Equivalentes\ de\ Caixa}{Passivo\ Circulante}$ |
| Liquidate Seca (LS) | $\frac{Ativo\ Circulante - Estoques}{Passivo\ Circulante}$ |
| Liquidez Current (LC) | $\frac{Ativo\ Circulante}{Passivo\ Circulante}$ |
| General Liquidity (LG) | $\frac{Ativo\ Circulante + Realizável\ a\ Longo\ Prazo}{Passivo\ Circulante + Exigível\ a\ Longo\ Prazo}$ |

Source: Adapted from Martins, Diniz and Miranda (2020, p, 155)

According to Assaf Neto (2023), Immediate Liquidity indicates the percentage of short-term debts that can be settled immediately, while Dry Liquidity reveals the percentage

of short-term debts that can be settled using only available accounts and receivables. Also according to this author, Current Liquidity demonstrates how much current assets there are for each $1 of short-term debt, that is, the higher this ratio, the greater the company's ability to finance its working capital needs, while General Liquidity indicates a general overview of the company, as it reveals both in the short and long term,  what is the company's ability to pay.

For Martins, Diniz and Miranda (2020, p. 161):

> It is obvious that the higher the liquidity ratio (very short-term, dry, current or any other, including that one wants to create for a particular situation), the better from the point of view of the ability to settle obligations. A Current Ratio of 2.0 should be considered, for the vast majority of companies, exceptionally good, showing a Current Assets equal to twice the Current Liabilities. A very short-term liquidity ratio of more than 1.0 is what every financial manager would like to have to satisfy their peace of mind in terms of debt repayment capacity.

## DEBT RATIOS

Debt ratios relate the sources of funds, seeking to relate equity capital with third-party capital and are extremely important, as they indicate the company's dependence on third parties (Iudícibus, 2017).

Table 3: Debt ratios

| Index | Formula |
|---|---|
| Third-Party Capital on Total Resources | $\frac{Exigível\ Total}{Exigível\ Total + Patrimônio\ Líquido}$ |
| Equity to Third-Party Capital | $\frac{Patrimônio\ Líquido}{Exigível\ Total}$ |
| Composition of Indebtedness | $\frac{Passivo\ Circulante}{Exigível\ Total}$ |

Fonte: Adapted from Marion (2023)

The ratio of third-party capital to total resources represents the percentage of indebtedness over the company's total funds, in the long run this ratio cannot remain high, since this fact would lead to a progressive increase in financial expenses, deteriorating the company's profitability position (Iudícibus, 2017).

The ratio of equity to third-party capital demonstrates the relationship between the company's equity and the capital belonging to third parties, "an exaggerated participation of Third-Party Capital in relation to Equity makes the company vulnerable to any inclement weather" (Marion, 2023, p. 90).

For Silva (2019, p. 150), through the analysis of the composition of indebtedness "it is possible to measure the volume of the company's debts maturing in the short term in relation to the total debt".

> The booming company should seek financing, largely with long-term debt, so that as it gains additional operational capacity with the commissioning of new equipment and other production resources, it will be able to start paying off its debts. That is why expansion should be avoided with short-term loans, unless the payback period of the assets is very short, which rarely occurs (Iudícibus, 2017, p. 110).

According to Vieira (2020, p. 8), "studies seek to define models that help identify the factors that can lead to insolvency, based on the analysis of the economic and financial indicators presented in the financial statements". With this, the results of an analysis of the economic and financial information disclosed by the company to be analyzed will be presented below.

## RESULTS AND DISCUSSIONS

Table 1 analyzes the results presented in the company's Cash Flow Statements from 2021 to 2023.

Table 1: Cash Flow Results from 2021 to 2023 (in R$ million)

| | 2021 | 2022 | 2023 |
|---|---|---|---|
| Net Cash from Operating Activities | 1.118 | 3.079 | 4.024 |
| Net Cash from Investing Activities | (958) | (928) | (505) |
| Net Cash from Financing Activities | (1.363) | (1.913) | (2.965) |
| Change in Cash and Equivalents | (1.203) | 238 | 554 |

Source: The author

Based on table 1, it can be seen that in all the years analyzed, the company presented a positive result in its operating activities, that is, its main activity generated a good result for its cash.

However, it is identified that financing activities consumed cash in all the years analyzed. This result is a consequence of high payments related to loans, leases and interest arising from these operations, that is, in previous years the company used these financing resources on a large scale in order to increase its immediate cash, which may compromise the company's results.

Table 2 is presented below with the liquidity ratios from 2021 to 2023 calculated from the accounting and financial statements released by the company.

Table 2: Liquidity ratios from the years 2021 to 2023

| Liquidity Index | 2021 | 2022 | 2023 |
|---|---|---|---|
| Liquidez Imediata | 0,10 | 0,10 | 0,14 |
| Dry liquidity | 0,61 | 0,58 | 0,48 |
| Current Liquidez | 0,99 | 0,87 | 0,71 |
| General Liquidity | 0,94 | 0,93 | 0,87 |

Source: The author

Analyzing the data presented, it can be seen that all liquidity ratios are below 1, that is, all of them demonstrate the financial and economic difficulty of the company in making its payments in the short, medium and long term.

The quick ratio remains at 0.10 in 2021 and 2022, which can be interpreted as follows: the company has in its cash and cash equivalents the amount of R$ 0.10 for the payment of each R$ 1.00 of obligations present in its current liabilities, that is, the value is extremely low and demonstrates the company's financial difficulty in meeting its obligations in the short term. In 2023, this index increased by 40%, increasing to 0.14, but this increase becomes insignificant, since the immediate payment capacity remains extremely low.

Considering the general liquidity ratio, in which a more comprehensive overview of the ability to pay is observed, the following situation is understood: the company has in 2021 in all its current and long-term realizable assets the amount of R$ 0.94 for the payment of each R$ 1.00 of obligations present in its current liabilities and payable in the long term, In other words, considering short, medium and long-term payments, the situation becomes more favorable for the company, but the payment capacity is still insufficient.

In addition, this index has been falling over the years, reinforcing that in a general overview the company is having greater difficulty in paying its obligations every year.

Table 3 shows the debt ratios from 2021 to 2023 calculated from the data disclosed by the company in its statements.

Table 3: Indebtedness ratios from 2021 to 2023

| Debt Ratio | 2021 | 2022 | 2023 |
|---|---|---|---|
| Third-Party Capital on Total Resources | 0,84 | 0,85 | 0,89 |
| Equity to Third-Party Capital | 0,19 | 0,17 | 0,12 |
| Composition of Indebtedness | 0,63 | 0,65 | 0,66 |

Source: The author

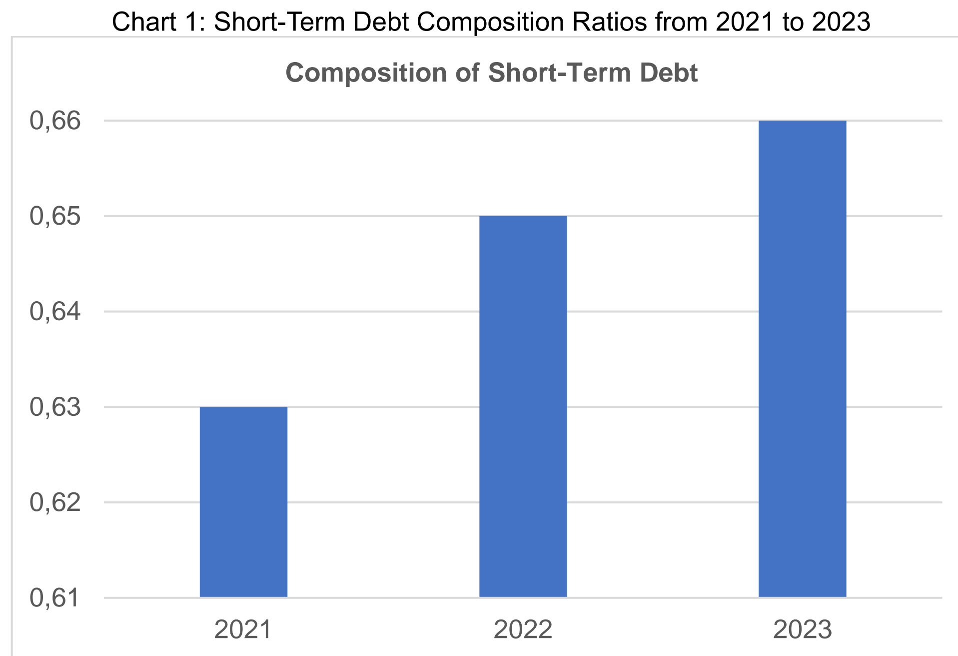
The ratio of third-party capital to total resources demonstrates how much the capital lent or financed to the company by external persons represents in all its capital. As a result, it is observed that in 2021, 84% of its total resources were financed by third parties, a high percentage that becomes more worrying for the company when compared to subsequent years since this index increased with each year analyzed.

This situation can further compromise the future of this company, since this gradual increase in the ratio of third-party capital to total resources causes a progressive increase in the payment of interest on this capital, which increases financial expenses and negatively affects the company's profitability.

Considering the ratio of equity to third-party capital, the results presented above are emphasized, in which the company's equity has decreased every year, increasing the need for external investments.

Chart 1 shows the evolution of the short-term debt composition index between the years 2021 and 2023.

Chart 1: Short-Term Debt Composition Ratios from 2021 to 2023




Source: The author

It can be seen from graph 1 that the debt composition index has gradually increased over the years. In 2021, it can be seen that the obligations assumed by the company in the short term represent 63% of the total obligations assumed. Thus, it has a very high ratio of short-term debt, which harms the company's performance, since it may lack cash to meet these immediate obligations.

Table 4 is presented below containing the information on Gross Revenue, Financial Expenses and Net Income (Loss) present in the Income Statements for the year 2021 to 2023 of the company under study.

Table 4: Gross Revenue, Financial Expenses and Net Income (Loss) from 2021 to 2023 (in R$ million)

| | 2021 | 2022 | 2023 |
|---|---|---|---|
| Gross income | 36.375 | 36.418 | 34.433 |
| Financial Expenses | (1.520) | (2.878) | (3.417) |
| Net Income (Loss) | (297) | (342) | (2.625) |

Source: The author

Considering the values presented in table 4, it can be seen that the Gross Revenue in the years analyzed had little variation, but the Financial Expenses had notable increases of 89% and 19% respectively, as a consequence of the increase in the use of third-party capital through loans and financing as previously presented, which brought significant impacts on the company's Net Income (Loss).

## FINAL CONSIDERATIONS

The research was prepared with the objective of recognizing how the analysis of financial statements and economic-financial indicators collaborate to identify a company's financial difficulties in advance and help predict insolvency.

In view of the case study carried out, since 2021 the company's future financial difficulty was evident, which resulted in the request for extrajudicial reorganization in 2024. Based on all the data analyzed, it is concluded that the company acquired loans and short-term financing in abundance, harming its results.

Following the evolution from 2021 to 2022, it was found that: the use of third-party capital increased, the value of the payment of financial expenses grew significantly, the debt composition ratio showed that most of the debts contracted by the company were short-term and the low immediate liquidity ratio proved that the short-term payment capacity was insufficient to meet these obligations.

As a result, the company's management could have taken immediate action at the time to reverse this situation, since through the effective and early analysis of the statements and indicators, it was clear that the company was becoming unable to pay its debts and the state of insolvency was imminent.

One of the measures that could have been taken was the sale of fixed assets and intangibles with the objective of immediately paying off part of the short-term obligations, reducing the use of third-party capital and mitigating the payment of interest and financial expenses.

In addition, the use of the out-of-court reorganization process may have been a risky alternative in this case, since with this process an agreement was made with the main banks in which the company has outstanding debts in order to extend the payment term, transforming short-term obligations into long-term obligations. Consequently, the increase in this term increases the financial expenses with the interest that will be incurred, which may continue to compromise the company's future results.

A suggestion for future work would be to monitor the financial and accounting statements released in future years, to verify if the out-of-court reorganization process was

effective and if it was an assertive decision in an attempt to reverse the company's situation.

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