

# School of Higher Commercial Studies



A dissertation for obtaining the master degree in commercial sciences

Option: Finance and Accounting

## THEME

The impact of financial analysis on decision  
making  
Case CHIALI

**Presented by:**

**Mr. YUCEFI Fadhl Eddine**

**Supervised by:**

**Dr. CHENNOUFI Wassim**

**June 2023**



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## *Acknowledgements*

I would like to express my gratitude to GOD for the courage and patience that have been valuable to us throughout our journey.

I would like to extend our heartfelt appreciation to my supervisor, Mr. Chennoufi, for his patience, valuable advice, guidance, and availability throughout this work.

We would also like to thank all the people at Chiali company for their warm and friendly welcome, especially my supervisor, Mr. Chouib, for his kindness and assistance in producing a better-quality work.

Our thanks also go to all the teachers of EHEC.

Finally, we would like to thank everyone who has contributed directly or indirectly to making our work possible.

## *Dedication*

This work is affectionately dedicated to the pillars of my life - my loving parents. Your unyielding support, unwavering faith, and invaluable lessons have been the foundation upon which I built this endeavor. The strength you provided and the sacrifices you made have illuminated my path throughout this journey. You have nurtured my dreams and aspirations with your infinite love and understanding. For that, I am eternally grateful.

To my dear friends - Aimene, Oussama, Abderrezak, Anes, Amir, and Aniss - this is for you as well. You have all been beacons of light in the murkier times, guiding me with your wisdom, lifting me with your humor, and motivating me with your companionship. The bonds we've forged and the memories we've created have been integral in shaping not just this work, but also the person I have become. Your constant encouragement, unwavering belief in me, and our shared moments of joy and sorrow have enriched my journey beyond measure.

May this work stand as a testament to the power of love, friendship, and shared dreams. To each one of you, I extend my heartfelt thanks and deep appreciation.

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**General**

**introduction**

## GENERAL INRODUCTION

Financial analysis is considered a vital necessity for sound financial planning, the importance of which has increased in the context of the complexity and expansion of economic business activities. It has become necessary for the financial manager to understand the financial situation of the company before considering the development of future projects.

However, it is clear that due to economic development, the results presented in the final financial statements of companies are no longer able to present a comprehensive picture of the activity without being enhanced with one or more financial analysis tools. Given that the absolute figures in these statements are no longer capable of portraying a company's financial situation, these data must be subject to audit review and financial analysis in order to study the reasons for their success or failure and to highlight their strengths and weaknesses.

In addition to the complexity that accompanies decision-making, administrative decision-making in the field of operations, investment, or financing is no longer an easy task for the decision-maker to undertake based on their personal experience, without using the results of financial analysis. Administrative decisions are only made after a thorough study and a numerical analysis of the final financial statements so that the financial manager can discover the strengths and make good use of them, identify weaknesses and take necessary steps to correct them.

The effective use of the accounting information system by companies will contribute to achieving their goals. Interest in this system has increased due to the important role it plays in business development as it provides all appropriate information for all administrative levels. It aims to improve and develop communication and information flow between administrative levels to make accurate and thoughtful decisions to improve the company's performance. Accounting information has become the main role on which the responsibility of changing and correcting the course of any facility and evaluating its performance rests.

## **GENERAL INRODUCTION**

The decision-making process in economic companies has become a necessity, then it has become necessary for the financial manager to perform an analysis on the financial statements that contain a large number of figures which are collected daily in accounting books. They must study, analyze and interpret these figures in order to understand the real financial situation of the company and take advantage of it to make the necessary decisions. This is what financial analysis seeks to achieve.

### **Research Problem and Objectives**

The decision-making process has become necessary in the economic enterprise, and the success of the company depends on its decisions, especially in the financial field, where the financial analyst conducts an analysis of the financial statements so that they can understand the real financial situation of the company and use it to make the necessary decisions. This is what financial analysis aims to achieve.

Based on the above, we can pose the following question:

What is the role of financial analysis in financial decision-making within the company?

To delve deeper into this subject, we ask the following sub-questions:

- What is the importance of financial analysis and what is its effectiveness in the company's policy?
- What are the tools of financial analysis?
- What is the decision-making process?
- How does financial analysis contribute to illuminating decision-making within CHIALI?

# **GENERAL INRODUCTION**

## **Research Hypotheses**

The adopted research model led us to outline a body of hypotheses that will be subject to validation.

We have two main hypotheses, as follows:

- Financial analysis reveals the weaknesses of the company's financial structure and we take the necessary corrective measures.
- Financial analysis tools are the main pillar to support the company's decisions.

## **Choice of Theme**

The reason for choosing this research is due to the importance it acquires from the information and data that have allowed the selection of this topic, which is:

- The topic corresponds to our specialty;
- It is a theme that is always topical;
- Applying our theoretical knowledge to gain experience;
- Financial analysis is an important tool in decision-making;
- The importance of financial analysis in decision-making in economic enterprises through the results that appear after the application of financial analysis tools.

## **Research Objectives**

The objectives of conducting this research are to acquire practical experience in our field of study through the internship we have undertaken in the company and to identify the financial situation of the company by conducting a financial analysis of the company. We aim to understand to what extent the institution achieves its objectives and its adherence to the financial balance it seeks, its style, and its effectiveness in decision-making.

# **GENERAL INRODUCTION**

## **Research Methodology**

In this present work, we will adopt a bibliographical research approach through reading articles, books, internship reports, and theses, and through a practical internship within the CHIALI Company.

To answer these questions and to successfully complete our work, we have structured it into three chapters:

In the first chapter, we discuss the conceptual framework of financial analysis, which we have divided into three sections. In the first section, we talk about the generalities of financial analysis, in the second section, we discuss the parts of financial analysis, its uses and its fields. Finally, in the third section, we cite the documents used in financial analysis.

In the second chapter, in the first section, we address the tools of financial analysis represented in the financial indicators and ratios for financial analysis. We will dedicate this part to deepening the concept of the decision-making process and see financial analysis as a decision-making tool.

The last chapter will be devoted to the field study at the CHIALI Company. Then we will analyze its financial situation based on the different financial analysis tools seen in the theoretical part.

# Chapter 1

# AN OVERVIEW OF FINANCIAL ANALYSIS

## Chapter 1: an overview of financial analysis

Due to its crucial function in examining the company's activity, financial analysis is a crucial topic for businesses, it includes economic and financial studies, financial analysis, in general, is a detailed examination of financial and accounting statements to better understand the company's situation and make well-informed choices.

This chapter helps us determine the information required for financial analysis.

### Section 1: Theoretical framework of financial analysis

To study financial analysis, it is important to discuss its history and definition.

#### 1.1. History of financial analysis

General accounting was created in the middle Ages, which led to the development of financial analysis. However, it was closely linked to accounting, and before the start of the 20th century,

It was difficult to identify a specific management strategy that can be referred to as financial analysis.<sup>1</sup>

The need for money by businesses increased in the 1920s, and finance issues dominated. This resulted in a general lack of interest in internal management. At the eve of the crisis the 1929 crisis, which was to introduce a profound transformation of habits, the role of bankers was mainly to ensure account movements and provide occasional cash facilities. The problem was to ensure the financing of emerging industries such as coal, textiles, and construction. Operating credits were

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<sup>1</sup> *PLANCHON André, Introduction à l'analyse financière, Foucher Edition, paris, 1999, p8.*

# AN OVERVIEW OF FINANCIAL ANALYSIS

granted on the basis of solid guarantees, allowing the banker to ensure repayment by the debtor company. These guarantees were based on either the owners' personal assets or on the company assets.

The assets of the company consisted of real estate and tangible property. The credit risk was then linked to the legal modalities of taking guarantees. It was important to confirm that the asset used as a guarantee had a value separate from the company's valuation, and then evaluate this asset as well as the associated risks of depreciation. The difficulty of valuing the assets offered as a guarantee and determining their independence from the company's operations, along with the uncertainty surrounding the real value of the asset in the event of bankruptcy, showed to bankers that the simple perspective of seeking solvency was insufficient to determine the decision to grant credit.

In the mid-1950s, two trends emerged. On one hand, studies were moving toward financial theory and investment decision-making problems. On the other hand, the evaluation of the economy and increased competition led to a growing need for high-quality management, thus resulting in the development of internal financial analysis within companies.<sup>2</sup>

So far, this technique has gained recognition in companies and even accounting firms are gradually transitioning to analyzing the information they used to simply collect in the past.

## 1.2 Definitions of Financial Analysis

Financial analysis can be compared to a doctor's examination, diagnosis, and treatment prescriptions, the field of analysis in business is the financial sector, upon which the health of the company depends, and therefore its long-term survival.

Various definitions of financial analysis can be proposed:

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<sup>2</sup> <https://www.memoireonline.com/08/08/1487/analyse-financiere-outil-indispensable-gestion-d-une-entreprise.html> (Accessed Mars, 5, 2023 at 20:00)

# AN OVERVIEW OF FINANCIAL ANALYSIS

Financial analysis is a set of concepts, methods, and tools that allow for an assessment of the financial situation of a company, the risks that affect it, and the quality of its performance.<sup>3</sup>

Financial analysis is an information processing system designed to provide data to financial decision-makers. It serves as the basis for short-, medium-, and long-term forecasts.

The financial analysis enables an assessment of the financial health of a company, particularly in terms of solvency and profitability.<sup>4</sup>

Financial analysis is a set of reflections and work that allows, based on the study of accounting and financial documents, to characterize the financial situation of a company, interpret its results, and forecast its evolution in the short, medium, or long term in order to make decisions that result from this work of reflection.<sup>5</sup>

We get to the conclusion that financial analysis is a diagnostic of a company's financial situation and an assessment of its performance through an analysis of financial statements from previous and upcoming years. It is a technique to identify strengths and weaknesses because it is a unique examination of financial information through its financial statements and cash inflows and outflows.

## 1.3. Role and Objectives of Financial Analysis

### 1.3.1. Role of Financial Analysis

Financial analysis plays a dual role in the internal and external communication process of the company. On the one hand, it provides a source of indicators that allow management to monitor and improve the company's financial performance and position. On the other hand, enables external

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<sup>3</sup> COHEN Elie, « *Analyse financière* », 5th Edition économisa, paris, 2004, page 08.

<sup>4</sup> <https://www.lecoindesentrepreneurs.fr/analyse-financiere-dune-entreprise> (Accessed Mars, 5, 2023 at 00:00)

<sup>5</sup> 5 JOBARD. JP. : *Gestion financière de l'entreprise*, 11th edition, Sirey edition, paris 1997, page 429.

# AN OVERVIEW OF FINANCIAL ANALYSIS

stakeholders to interpret the financial information presented to them and make informed decisions about their interactions with the company.

Financial analysis primarily aims to:

- Determine the company's ability to borrow and repay its debt;
- Facilitate the management of the company based on an accurate diagnosis;
- Diagnose the financial situation of the company;
- Determine the present situation and future forecasts through calculations;
- Ensure financial balance between the company's uses and sources;
- Help find new investment opportunities;
- Study competitors, customers, or suppliers, in terms of their management and solvency;
- Assist decision-making that must be in line with the current state of the company, which aims to achieve objectives in a timely manner;
- Judge the viability of the financial policy within the company;

## 1.3.2. Objectives of financial analysis

Financial analysis serves as a bridge between different parties that deal with the company, as it seeks to achieve a set of objectives, namely:

### 1.3.2.1. Internal objectives

The results of financial analysis are considered one of the most important foundations upon which decision-makers rely to judge the effectiveness of management and its ability to achieve set objectives. Therefore, financial analysis aims to:

- Evaluate the financial and monetary situation of the company;
- Evaluate the results of investment and financing decisions;
- Identify the different gaps that have affected the company's performance and diagnose their causes;
- Determine the needs in terms of short and long term credit;
- Identify opportunities that the company can exploit and invest in;
- Measure the profitability of the company;

# **AN OVERVIEW OF FINANCIAL ANALYSIS**

- Verify the financial situation of the company and the financial risks it may be exposed to due to debt;
- Evaluate the financial independence of the company and its ability to repay its debts, taking into account future needs of the company;
- Evaluate the solvency of the company in the short and long term;
- Analyze the causes of profits and losses and evaluate the fund structure.

## **1.3.2.2. External objectives**

Even external parties dealing with the company have objectives behind the financial analysis of the company, as they aim to:

- Evaluate the financial situation and the ability of the institution to support the loan results;
- Compare the general situation of the company with companies in the same sector to show the strengths and weaknesses that characterize the company;
- Banks rely on financial analysis, especially when making borrowing decisions, and the establishment is required to submit liquidity reports to know the institution's ability to honor its debts;
- Evaluate financial results and thereby determine the numbers subject to taxation

## **Section 2: Financial Analysis, its users and its domains**

There are many users and beneficiaries of financial analysis information in various different domains, and the objectives of their use of this information vary.

### **2.1. Users of Financial Analysis**

Several parties benefit from the results of financial analysis depending on the objectives pursued by each party, including:

# **AN OVERVIEW OF FINANCIAL ANALYSIS**

## **2.1.1. Internal Users**

Company executives: By conducting good management, executives seek to understand the financial situation of the company and identify points in its operations that can improve management and results. To do so, they will be particularly attentive to anything that can help them make certain decisions (investments, financing, etc.). The analysis allows them to measure the performance of their own management, compare it to that of their direct competitors, and possibly implement corrective actions. It also allows them, and especially, to assess the solvency of their clients and suppliers by analyzing their own balance sheets.

Workers in the company: Employees are concerned about the situation of their company, to evaluate the risk associated with their employment contract, namely the risk of dismissal and the possibility of increasing their remuneration. They may also feel the need to know if their company is more or less performing than its competitors. Today, job candidates are increasingly interested in the financial situation and social policy of their future employer. Reading their accounts will therefore be very useful.

## **2.1.2. External Users**

Shareholders or partners: The shareholders are concerned about the return on the money invested, value added, and the risks associated with investments in the company. Therefore, they seek to know if it is better to hold onto stocks or buy stocks for those who wish to invest in the institution, and to know the past of the company and the risks it has been exposed to.

Creditors: All creditors of the institution whose debts are paid by the institution are included in this category, whether short or long term. Among them, there are undisputed banks, but banks do not rely solely on financial statements. They also depend on qualitative information (not just quantitative), which is extremely important in cases such as the trust relationship between the bank and the executives of the institution, in addition to the guarantees provided by the client that can modify the results of financial analysis.

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Suppliers: The supplier is concerned with ensuring knowledge of the financial situation of their dealers, which includes studying and analyzing the debts of the dealers in the supplier's books, and the evolution of this debt. Based on the analytical results of the clients' accounts, the supplier decides whether to continue to deal with them or reduce this transaction.

Customers: Customers are interested in information related to the continuity of the organization, especially if they are linked or dependent on the organization in the long term.

Governments: The interest of government agencies in the analysis of the performance of institutions is mainly due to surveillance reasons. And for tax reasons secondarily, in addition to the following objectives:

- Ensure respect to all laws and regulations;
- Monitor prices;
- Statistical objectives;

## **2.2. Financial Analysis Methodology**

These are the methods and procedures that the financial analyst deals with in the financial analysis of the company's financial statements. This methodology is governed by certain general principles that must be considered to successfully carry out the financial analysis process to achieve the desired objective. It can be expressed in the following stages of financial analysis:

# AN OVERVIEW OF FINANCIAL ANALYSIS

- Analyzing the purpose of the evaluation process:

The purpose of the financial analysis process is determined by the cause of the problem or issue faced by the company so that the analyst can collect information only on the relevant topic and save unnecessary efforts, troubles, and costs. For example, suppose a client applies for a loan from a commercial bank. In that case, the primary objective of the financial analyst is to ensure that the bank knows the client's financial capacity to repay the loan on time.

- Determine the period covered by the financial analysis:

In order for the financial analysis process to achieve its objectives, it must include the period of analysis of the financial statements of several consecutive years, as the financial statements of one year may not be sufficient to obtain the information through which the analyst can judge their capacities and the client's capabilities.

- Determine the information the analyst needs to achieve their objectives:

The information the analyst needs can be obtained from several sources. It can be obtained from financial data, and personal information about the client or can be obtained from the institutions that handle them.

- The appropriate method and tool of analysis should be chosen for the problem of the subject of study,
- The information available to the analyst should be used to make appropriate decisions.
- The appropriate financial analysis criteria should be selected to measure the results.
- The degree of deviation from the standard used in the measurement should be determined.
- The causes of deviation should be studied and analyzed,
- The necessary recommendations should be included in the report prepared by the analyst at the end of the analysis process.

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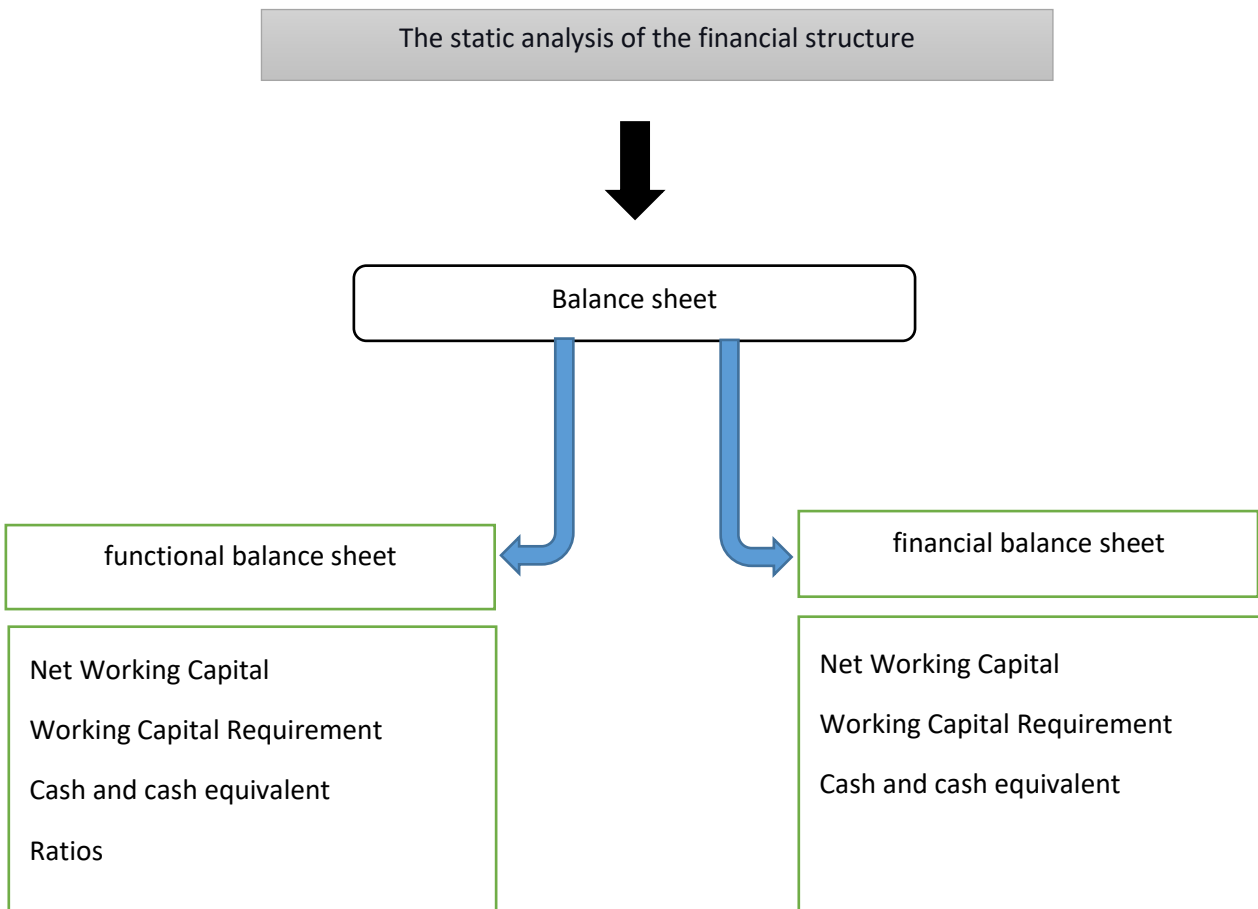
## 2.3. Financial analysis methods

Various management indicators are used to conduct a financial diagnosis to meet different users' expectations:

Static method

This approach is focused primarily on a balance sheet analysis. It makes it possible to analyze the company's financial situation, solvency, and profitability to some degree. It also addresses how the financial structure affects profitability and solvency. The "classic" foundation of financial analysis is static analysis.

Figure No. 1: Presentation of the static analysis of the financial structure.



Source: ELBAZI Mohamed, gestion financière, 1st Edition, published by EL BADI, 2006, Casablanca, P49.

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The Dynamic Method:

A ratio is a comparison between two items or groups of items on the balance sheet and/or income statement. Ratio analysis allows for the measurement of the company's overall profitability and for identifying the sources of this profitability. It also enables the measurement of key characteristics of the firm, such as capital intensity, financial independence, inventory turnover, productivity, etc. Finally, it allows for comparative studies either over time (what is the trend in profitability? Has financial freedom been maintained, deteriorated, or strengthened over the past three years? etc...) or compared to companies in the same industry (is the company's labor productivity rate above or below the average value of the main competitors in the industry?)

## Section 3: The different sources of information for financial analysis

The company conducts financial analysis at a specific moment, as it defines a list of its assets and liabilities to determine its financial assets. Through it, the sources of the company's activity can be known and monitored, as its direction and the discovery of the causes of success and failure that have hindered the company's activity. Therefore, it is necessary to have a clear and precise budget in which you can diagnose the financial situation through financial ratios and indicators, and this will be discussed in this section.

### 3.1. Documents used in financial analysis

#### 3.1.1. The Balance Sheet

There are several ways to define the balance sheet: <sup>6</sup>

Accountant's definition: who would explain that on the asset side we find the debit balances from retained earnings accounts, and on the liability side, we find credit balances... this is indeed technical and can be complex for those without a background in accounting.

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<sup>6</sup> JEAN-PIERE LAHILLE *Analyse financière, DALLOZ Edition, 1st Edition 2001, P28.*

# AN OVERVIEW OF FINANCIAL ANALYSIS

Economist's definition: who might say, for example, that the balance sheet is a statement that accounts for the three main functions (sometimes referred to as "...the three major cycles") of a company: the financing function, the investment function, and the operational function - or the operational cycle. This is true, to a certain extent, but if one tells this to a small business owner, they might wonder if they've landed on a different planet.

Financial analyst's definition the balance sheet - and the income statement - is a tool for measuring the theoretical value of the company, a value to be constantly compared with the one given by the financial markets. This is not incorrect, but the purpose of a company is not to be weighed 250 times a year (the approximate number of trading days...) to determine whether it's interesting to buy or sell.

The overall concept is that a balance sheet illustrates the financial status of a company at a specific point in time. To be more exact, it presents an overview of the components associated with the company's financial position.<sup>7</sup>

The financial balance sheet serves the following purposes: <sup>8</sup>

- Evaluating the company's financial composition with an emphasis on stability;
- Estimating the real net value of the company;
- Identifying financial balance by examining various balance sheet elements based on their liquidity or maturity, while noting the extent to which liquid assets cover liabilities;
- Examining the company's ability to pay off its debts and maintain liquidity;
- Assessing the potential risks for creditors and stakeholders

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<sup>7</sup> Elie COHEN. *Analyse financière, ECONOMICA Edition, 4th Edition, paris, 1997, P146.*

<sup>8</sup> GRANGUILLOT B.et GRANDGUILLOT F.: *Analyse financière, Gualino Edition, 4th Edition, Paris 2006, P129.*

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## 3.1.1.2 Elements of the Balance Sheet

The balance sheet is displayed as a table with two equal sides, where one side signifies the company's assets and the other indicates its liabilities. Alternatively, it can be structured as a single-sided table, with assets listed initially, followed by the company's liabilities. The following is a description of the components within the balance sheet:

A- Elements included in the assets of the balance sheet

The assets of the balance sheet are broken down into three parts: fixed assets, current assets, and adjusting accounts.

Fixed Assets:

Fixed assets include all items intended for long-term use in the company's operations. In accounting terms, these are called "fixed assets." There are three types:

- Intangible fixed assets: These are non-monetary assets without physical substance, such as patents, software, goodwill, establishment costs, lease rights, and research and development expenses.
- Tangible fixed assets: These are physical assets held for use in the production or supply of goods and services or for rental to third parties. Examples include industrial equipment, transportation equipment, furniture, computer hardware, land, and buildings.
- Financial fixed assets: Investment holdings (used to exert influence or control over a company), loans provided, and security deposit payments.

Intangible and tangible fixed assets lose value over time as they are used by the entity. Therefore, the entity must recognize an accounting depreciation each year, which is supposed to reflect the "consumption of future economic benefits" of the asset.

Financial fixed assets (investment securities, advances, and loans granted) cannot be depreciated but may be subject to provisions under certain conditions. In the balance sheet, three columns must

# AN OVERVIEW OF FINANCIAL ANALYSIS

be distinguished: the gross amount of fixed assets, the accumulated depreciation and impairments, and the net amount of fixed assets.

## Current Assets:

Current assets include asset values that, due to their purpose (inventory) or nature (receivables from customers) are not intended to be held long-term in the company's assets. There are six categories that can be distinguished.

- Inventories and work in progress: These include all goods and services involved in the company's operating cycle, intended for sale or consumption in the production process.
- Advances and down payments on orders: When a company places an order with its suppliers, the suppliers may request an advance or down payment as a prepayment;
- Receivables: These are claims that the entity holds against third parties (for example, customers, the public treasury, social organizations);
- Marketable securities: these are securities acquired with the intention of realizing short-term gains (purchases for resale). They will not be held long-term by the entity;
- Cash and cash equivalents: This category encompasses all amounts in cash and positive balances of bank accounts;
- Prepaid expenses: This item is used to neutralize the impact of expenses that have been recorded for one period but relate to a subsequent period;

## B- Elements included in the liabilities of the balance sheet

This section comprises all resources available to the company. It consists of the company's equity, provisions for risks and charges, and debts incurred by the company, as follows:

- Equity: Includes capital, reserves, retained earnings, and the net income for the fiscal year.
- Capital: This is the sum of resources (shares) contributed by the company's partners at the time of creation or during a capital increase. It represents the company's debt to its shareholders or partners.

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- Reserves: These are amounts retained by the company. They are neither distributed as dividends nor incorporated into the company's capital.
- Revaluation differences: This item results from legal revaluation transactions of fixed assets at their acquisition costs.
- Positive retained earnings: The sum of profits awaiting a decision for integration into reserves or distribution to shareholders.
- Investment grants: These are liabilities on the balance sheet, corresponding to aid received from the state or local authorities to acquire fixed assets.
- Negative retained earnings: The deficit of the current fiscal year and deficits from previous fiscal years.
- Net income for the fiscal year: Represents the profit (+) or loss (-) of the fiscal year.
- debts:

This section includes all of the company's debts to third parties, regardless of their maturity.

- Financial debts: Financial debts are agreed upon with third-party lenders, with a medium or long-term perspective, to facilitate the company's development. They may originate from financial markets, banks, credit institutions, or even partners.
- Bond loans: The amount of loans constituted following a public offering based on the issuance of bonds or any other financial instrument.
- Operating debts: This includes amounts owed to operating suppliers, as well as operating tax and social debts.
- Other debts: The amount of debts excluding tax and social debts, debts owed to suppliers, and debts on fixed assets. This may include, for example, debts owed to partners.

**Table No. 1: Overall Structure of the Balance Sheet**

Assets	Liabilities
Fixed assets	Equity
Intangible assets	Provisions for risks and charges
Tangible assets	Debts
Financial assets	Bond loans and similar
Current assets	Borrowings and debts with credit institutions
Stocks and work in progress	Supplier debts
Receivables	Tax and social debts

## AN OVERVIEW OF FINANCIAL ANALYSIS

Marketable securities	Other debts
Cash and cash equivalents	Total liabilities
Total assets	Total liabilities

Source: Source : Elie Cohen, Analyse financière, ECONOMICA Edition, 4th Edition, P148.

**Tableau No. 2: Presentation of the Balance Sheet**

Assets	N Gross	Depreciation and amortization	N Net amount	N-1 Net amount
<b>NON-CURRENT ASSETS</b>				
Intangible assets				
Tangible assets				
Land				
Buildings				
Other tangible assets				
Concession assets				
Assets under construction				
Financial assets				
Equity-accounted investments				
Other investments and related receivables				
Other fixed-income securities				
Loans and other non-current financial assets				
Deferred tax assets				
<b>TOTAL NON-CURRENT ASSETS</b>				
<b>CURRENT ASSETS</b>				
<b>Stocks and work in progress</b>				
<b>Receivables and similar items</b>				
Customers Other debtors				
Taxes and similar items				
Other receivables and similar items				
<b>Cash and cash equivalents</b>				

## AN OVERVIEW OF FINANCIAL ANALYSIS

Current investments and other financial assets				
Cash				
<b>TOTAL CURRENT ASSETS</b>				
<b>TOTAL ASSETS</b>				

LIABILITIES	NOTE	N Amount	N-1 Amount
<b>EQUITY</b>			
Issued capital			
Uncalled capital			
Premiums and reserves / (consolidated reserves) (1)			
Revaluation differences			
Equivalence differences (1)			
Net income - Group share (1)			
Other equity - retained earnings			
Share of the consolidating company (1)			
Share of the Minority (1)			
<b>Total</b>			
<b>Non-current liabilities</b>			
Loans and financial debts			
Taxes (deferred and accrued)			
Other non-current liabilities			
Provision and deferred income			
<b>Total non-current liabilities</b>			
<b>Current liabilities</b>			
Suppliers and related accounts			
Taxes			
Other liabilities			
Negative cash balance			
<b>Total current liabilities</b>			

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Total liabilities			
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Official Journal of the Algerian Republic No. 19 of March 25, 2009.

## 3.1.3. The Income Statement

### 3.1.3.1. Definition of the Income Statement

In response to the definition of the income statement given by article 9 of the commercial code: "the income statement summarizes the revenues and expenses of the business, irrespective of their dates of receipt or payment. It shows, by difference, after deduction of depreciation and provisions, the profit or loss for the period."<sup>9</sup>

The flow of all revenues and expenses attributable to the time period determined by the accounting period is shown in the income statement. It breaks down into operating, financial, and extraordinary income and expense categories, with each showcasing an operating, financial, and exceptional result.

Within these three categories, expenses are presented by nature. The net result for the period, whether a profit or a loss, is the final balance of the results.<sup>10</sup>

According to this definition, the income statement includes three types of accounts, according to the national accounting plan, called management accounts, which are:

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<sup>9</sup> LAHILLE Jean-Pierre, *Analyse financière, DALLOZ Edition, 1th Edition, 2001, P17.*

<sup>10</sup> HUBERT de la BRUSLERIE, *Analyse financière, DUNOD Edition, 4th Edition, paris, 2010, P103.*

# AN OVERVIEW OF FINANCIAL ANALYSIS

- Expenses: These represent a decrease in economic benefits during the period in the form of outflows or reductions in assets, or the occurrence of liabilities, which result in a decrease in equity.

11

Expenses are divided into three main categories:

- Operating expenses: These have not been defined specifically, but in practice, they are the expenditures necessary for the operational functioning of a business (often referred to as routine management expenses). In practice, operating expenses represent all the accounts from 60 to 65 of the general accounting plan as well as certain other accounts.

- Financial expenses: These are expenditures incurred as a result of operations aimed at gathering the necessary financing for the business's operation (investment realization, activity continuation). They represent amounts paid in exchange for the contribution of internal capital (contributions in current accounts of associates) or the receipt of external funds (loans and borrowings, discounts).

- Exceptional expenses: These correspond to all expenses that do not relate to the company's routine management. They can relate to management operations or capital operations.

- Revenues:

These represent the increase in economic benefits during the fiscal year in the form of entries or increases in assets or decreases in liabilities. Revenues also include recoveries on losses on values and provisions.<sup>12</sup>

Revenues are divided into three categories:

- Operating revenues: They mainly correspond to the sales recorded during the considered fiscal year. They differ from operating receipts due to the payment terms granted to customers. They are directly related to the company's activity and therefore are closely observed by various external analysts, as they reveal the volume of business generated by current operations.

- Financial revenues: These are revenues generated primarily by the disposal of assets.

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<sup>11</sup> HUBERT de la BRUSLERIE, *Analyse financière*, DUNOD Edition, 4th Edition, paris, 2010, P77.

<sup>12</sup> *Official Journal of the Algerian Republic*, N°19, du 28/05/2008.

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- Exceptional revenues: These contain revenues that do not come from the operational activity of the company and are not financial, such as disposals of assets.

Results:

The results are obtained by the difference between revenues and expenses. They can be summarized as follows:

- Production of the fiscal year: This is the value of products and services manufactured by the company that would have been sold or stored, or used to constitute fixed assets.
- Consumption of the fiscal year: They represent goods and services purchased from outside, they are intermediate consumptions.
- Added value: It represents the increase in value brought by the company to goods and services from third parties and constitutes a relevant criterion concerning the size of the company.
- Gross operating surplus: This is the first economic profit before taking into account depreciation and financing policies.
- Operating result: This is the net resource generated by routine management operations. It's the second economic profit that takes into account depreciation policies and operational risks.
- Financial result: It represents the consequences of taking into account financial policies and the company's financing (investments, loans...).
  
- Net result of ordinary activities: This is the third economic profit that incorporates depreciation policies, risks, and financing. It measures the economic and financial performance of the company.
- Extraordinary result: This result takes into account all the exceptional aspects of the company's life.
- Net result of the fiscal year: This is the final result that takes into account all the economic and tax aspects of the company.

The generation of results relies, in all three systems, on a breakdown of activity into three functional areas about which revenues and expenses are identified: operational management, financial management, and exceptional operations. In addition to the overall result, there are three operating results, a financial result, and an exceptional result.

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The list presentation highlights the chain of calculations that successively produce the operating result, the financial result, the exceptional result, and then the overall result, thanks to the comparison between revenues and expenses that respectively enter into the calculation of each of these balances.

**Tableau No. 3: Presentation of the Income Statement**

Designation	Note	N	N-1
Sales Revenue			
Change in finished goods and work in progress			
Capitalized Production			
Operating Subsidies			
<b>1-PRODUCTION OF THE FISCAL YEAR</b>			
Consumed Purchases			
External services and other consumption			
<b>2-CONSUMPTION OF THE FISCAL YEAR</b>			
<b>3-ADDED VALUE OF OPERATIONS (1-2)</b>			
Personnel expenses			
Taxes, levies, and similar payments			
Other operational revenues			
Other operational expenses			
Depreciation and provisions			
Reversal of value losses and provisions			
<b>5-OPERATING RESULT</b>			
Financial revenue			
Financial expenses			
<b>6-FINANCIAL RESULT</b>			
<b>7-ORDINARY RESULT BEFORE TAXES (5+6)</b>			
Tax payable on the ordinary result			
Deferred tax (variation) on the ordinary result			
<b>TOTAL REVENUES FROM ORDINARY ACTIVITIES</b>			
<b>TOTAL EXPENSES FROM ORDINARY ACTIVITIES</b>			
<b>8-NET RESULTS FROM ORDINARY ACTIVITIES</b>			

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Extraordinary items (revenue)			
Extraordinary items (expenses)			
9-EXTRAORDINARY RESULT			
10-NET RESULT OF THE FISCAL YEAR			
Share in net results of associated companies (1)			
11- CONSOLIDATED NET RESULT (1)			
Attributable to non-controlling interests (1)			
Attributable to non-controlling interests (1)			
Attributable to the parent company (1)			

Source : collectif EPBI, nouveau système comptable financier, Pages bleues internationales Edition, 2010, p 167-168.

### 3.2. The Note

The note is a summary accounting document that is inseparable from the balance sheet and the income statement. This innovation has significant analytical interest as it provides methodological guidance and additional information that is particularly useful for understanding the accounts.

Therefore, the note is a statement that contains information to deepen the understanding of the other financial statements.

#### 3.2.4.1. The objectives of the note

- It provides additional information to aid in understanding the balance sheet;
- It provides a lot of information about the company's accounting;
- It contains accounting information, such as the accounting rules and methods used by the company, commitments, as well as various explanations about the expenses and revenues;

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## 3.2.4.2. The information in the note. <sup>13</sup>

The note is part of the annual accounts and forms an inseparable whole with the income statement and the balance sheet. It complements and comments on the information given by the balance sheet and the income statement. It provides several pieces of information, such as:

### A-1- Information on accounting rules and methods

- Mention of the application of general conventions and professional adaptations with reference to the correspondence notice of the National Accounting Council .
- Indication and justification of any derogations from the general rules for the preparation of summary documents.
- When several methods are applicable for a transaction, mention and justification of the chosen method;
- Indication of the impact on the results of the financial year of any significant change voted between the closing date of the statement;

### A-2- Additional information related to the balance sheet and income statement

The balance sheet provides information on the components of the assets and liabilities and indicates the balance sheet items also affected by an asset or liability item allocated to another item. It provides information on fixed assets, the state of depreciation and provisions, as well as information on lease-purchase operations.

Details on the nature of, the amount of treatment:

- Establishment costs;
- Products to be received and charges to be paid;
- Exchange rate differences;
- Products and charges attributable to another fiscal year;
- Exceptional products and charges;

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<sup>13</sup> J.-Y, EGLEM , A. PHILIPPS , C. et C.RAULET, *Analyse financière, 8th Edition, DUNOD Edition , paris, 2007, P81.*

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- Charge transfers;
- Claims resulting from the carryback of losses.

## B- Various information

Displayed is the number of nominal values of shares and partnership shares, with mentions of those held by the company itself or by a legal person acting on its behalf, and information on beneficiary shares and convertible bonds,

- Amortization of loan redemption premiums;
- Average number of employees by category.
- For members of administrative bodies;
- Various information regarding fiscally integrated companies.

### 3.2.4.3. The tables of the note

For some information, the general accounting plan recommends presentation in the form of tables.

**Table No. 4: Fixed Assets Table.**

categories	Gross value at the beginning of the fiscal year	Increases	Decreases	Gross value at the close of the fiscal year
Intangible Assets				
Tangible Assets				
Financial Assets				
Total				

Source : J.-Y, EGLÉM , A. PHILIPPS , C. and C.RAULET, Analyse financière, 8th Edition, DUNOD Edition, paris, 2007, P81

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**Table No. 5: Table of Depreciations**

categories	Accumulated Depreciation at the Beginning of the Fiscal Year	Increase in Allocation for the Fiscal Year	Decrease in Depreciation for the Fiscal Year	Accumulated Depreciation at the End of the Fiscal Year
Intangible Assets				
Tangible Assets				
Financial Assets				
Total				

Source : J.-Y, EGLEM, A. PHILIPPS, C. et C.RAULET, Analyse financière, 8th Edition, DUNOD Edition, paris, 2007, P81

**Table No.6 : Provisions Table**

Categories	Provision at the beginning of the fiscal year	Increase in allocation for the fiscal year	Decrease in depreciation for the fiscal year	Provision at the end of the fiscal year
Regulated provisions				
Provision for risks				
Provisions for charges				
Provisions for depreciation				
Total				

Source : J.-Y, EGLEM , A. PHILIPPS , C. et C.RAULET, Analyse financière, 8th Edition, DUNOD Edition, paris2007, P81.

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## 3.3. Construction of Financial Documents

Every company needs to build financial statements and functional balance sheets for an analysis of its financial structure. Financial analysis is based on the financial balance sheet and the accounting balance sheet. These adjustments and reclassifications that occur at the accounting balance sheet level allow the financial analyst to obtain a balance sheet very close to the economic reality and to make a reliable analysis based on the need for the information he has about the company.

### 3.3.1. The Financial Balance Sheet

The financial balance sheet or liquidity balance sheet is established to assess the company's assets and its short-term solvency, and the financial balance sheet is very close to the company's reality.

#### 3.3.1.1. Definition of the Financial Balance Sheet

The financial balance sheet is a document that allows us to know what is owned by a company (its assets) and what it owes (its liabilities). It uses the information provided by the accounting balance sheet, rearranging it to determine the company's short-term solvency.

The financial balance sheet, also called the liquidity balance sheet, is the basis of a company's financial analysis. By reclassifying the items of the balance sheet according to their liquidity in assets and their due dates in liabilities, it allows us to make a judgment on the solvency of the company being studied.

The financial balance sheet allows:<sup>14</sup>

- To appreciate the financial structure of the company from a liquidation perspective;;
- To determine financial equilibrium by comparing the different masses of the balance sheet classified according to their degree of liquidity or eligibility and by observing the degree of coverage of the liabilities due by liquid assets;

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<sup>14</sup> GRANGUILLOT B et GRANDGUILLOT F, *Analyse financière, 4th Edition, Gualino Edition, Paris, 2006 P129*

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- To study the solvency and liquidity of the company.
- To estimate the risks run by creditors and stakeholders;

## **3.3.1.2. Who is interested in a company's financial balance sheet?**

Many users need the financial balance sheet:

- The financial analyst accurately assess the real value of the company and the shares of capital,
- A potential buyer, successor, or assignee,
- The credit institution requested a loan application,
- The entrepreneur in the event of cessation of activity, etc.

## **3.3.1.3. The structure of the financial balance sheet**

The financial balance sheet consists of two major aspects:

- The first contains all of the company's uses of funds (assets),
- The second is reserved for all resources (liabilities).

### **3.3.1.3.1. Asset adjustments**

Fictitious assets:

"Fictitious" assets or "non-values" have no market value. They appear on the assets side of the balance sheet for reasons related to accounting techniques or management choices. They are:

- to be eliminated from the assets, and in return, deducted from equity.

These correspond to the items related to capitalized expenses (recorded as assets for spreading over time):

- Establishment costs (incorporation expenses, etc.);
- Research and development costs (to be possibly eliminated when the projects have little chance of succeeding);
- Expenses to be spread over several years (on loan issuance costs);
- Bond redemption premiums (in case of bond borrowing);

Financially these elements are:

- Exchange rate Differences - Assets:

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They correspond to "latent exchange losses" recognized when converting receivables and debts denominated in foreign currencies. They are:

- To be transferred to assets due within less than a year (general principle), or subtracted from Equity, if the loss is not covered by a provision for exchange risk.

- Prepaid Expenses

In principle, these are real receivables to be included in receivables due within less than a year. If they are uncertain, then, as a precaution, they can be considered as non-values and eliminated from the assets and thus deducted from equity. The restatements should be made according to available information.

- Marketable Securities (MS)

Considered as quasi-liquidity, they should be grouped, for their net amount (after deduction of any provision), in cash.

However, in this case, there is a real and justified market value. A created business fund does not appear in the balance sheet assets. In practice, its potential resale value represents a latent capital gain. If a realization period is necessary (unlisted securities, for example), they should be included in receivables due within less than a year.

- Discounted Bills not yet due

Their origin lies in the receivables held on customers. Their negotiation (discount) at the bank has transferred their ownership to the endorsee, hence their exit from the company's assets. However, by principle of solidarity, the company may find itself committed in the event of non-payment at maturity. Therefore, they are to:

- be reintegrated into receivables due within less than a year, and to be added to liabilities due within less than a year (passive treasury);

Uncalled capital commitments

This item must be eliminated from the assets and equity (fictitious asset), however, if a payment is due within less than a year, then it should be transferred to short-term receivables.

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- Tool stock or minimum stock

Essential for the operation of the company, it is considered as fixed and therefore over 1 year, it must be transferred from current assets to fixed assets.

## 3.3.1.3.2. Liabilities restatement

- Equity

They should be assessed after profit distribution. Therefore, the restatements consist of:

- Deducting the portion of the result to be distributed (dividends to be paid) and transferring it to debt due within less than a year.
- Deducting the fictitious assets or non-values.
- Deducting the fraction of tax to be paid (latent or deferred tax) for later re-integrations corresponding to:
  - Remaining investment grants to be transferred to profits;
  - Possible provisions for price increases;
  - Depreciation to be taken back.

The amount of the latent tax is to be transferred to debt due over a year or within a year, depending on the tax deadlines.

- Provisions for risks and charges

They have been set up, out of respect for the principle of prudence, in the assumption of costs and therefore probable future debts.

If they are not justified, they are considered as hidden reserves and should be transferred to equity, if they are justified and according to the probable date of realization of the risk or charge, they should be transferred either:

- To liabilities due over a year,
  - To liabilities due within a year.
- Shareholder current accounts

These are contributions made by partners for a more or less long period. When they are blocked or stable, they must be transferred from financial liabilities to equity.

- Exchange rate differences – Liabilities:

They correspond to latent foreign exchange gains, recorded when converting receivables and debt denominated in foreign currencies. Although these gains are latent, they have already borne tax

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due to their tax reintegration. They should be added to equity, they are considered short-term debt (less than one year).

- The fiscal year result:

It is essential to have precise indications regarding the allocation of the fiscal year result.

Two cases are possible:

- The result is a loss:

In this case, it is assigned so as to cause a decrease in equity depending on the deficit value.

- The result is a gain:

Part of this result will leave the company's accounts in the form of a tax (Corporate Tax), the balance will either be distributed to the owners (partially or totally) in the form of dividends, or be put in the company's reserve, thus improving its information capacity.

- Lease financing:

"This is a lease contract for investors for a specified duration with a promise to purchase at the end of the contract, the tenant company can acquire the property rent or renew the contract with a reduced rent".

- It is recorded in the assets (immobilized value with its original value, the amount of rent is already paid);

- It is recorded in the liabilities (Long Term Debt), with the value of the rents remaining to be paid.

### 3.3.2.3. The Structure of the Financial Balance Sheet

The financial balance sheet is divided into two parts: uses of funds and sources of funds.

**Table N°7: Presentation of the financial balance sheet.**

Assets	Amount	Liabilities	Amount
Fixed Assets		Permanent Capital	
Fixed asset values		Equity	
Preliminary expenses		Social fund	
Building		Result allocated to reserves	
Land		Unjustified provision	

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Other fixed asset values		Revaluation differences	
Operational stock		Long-term    Medium    Loans	
Equity investments		Investment debt	
Deposits paid		Other debts over one year	
Current Assets		Result distributed to partners	
Operating values		Provision for justified long-term	
Stock (excluding operational		loans and charges	
stocks)		Current liabilities (Short-term	
Realizable values		Debt)	
Bills to be recovered		Stock debts	
Customers		Bills to pay	
Equity investments		Tax on unjustified provisions	
Other receivables		Income tax	
Various debtors		Result distributed to partners	
Available values			
Bank			
Postal checking account			
Cash			
<b>TOTAL</b>		<b>TOTAL</b>	

Source : Elie. COHEN. Analyse financière, ECONOMICA Edition, 5th Edition, Paris 2004, Page197.

- Presentation of the balance sheet in broad categories

The evaluation of the asset and liability items according to their economic values and their classification in ascending order of liquidity for assets and in ascending order of exigibility for liabilities allows to present the balance sheet in broad categories.

The balance sheet in broad categories brings together all the asset and liability accounts, categorized according to their degree of liquidity and exigibility.

Sure, let's translate that to English and format it into a table:

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**Table No. 8: Presentation of condensed balance sheet.**

ASSETS	Amount	%	LIABILITIES	Amount	%
Fixed Assets			Permanent Capital		
Current Assets			- Shareholder's Equity		
- Operating Assets			- Long and Medium Term debts		
- Realizable Assets			- Short Term Debts		
- Cash and Cash Equivalents					
<b>TOTAL</b>		100	<b>TOTAL</b>		100

Source: established by me based on accounting documents.

## Conclusion

This chapter has allowed us to assimilate the fundamental concepts and the specific vocabulary of financial analysis.

Financial analysis plays a prominent role in financial management as it helps to define the policies to follow and to evaluate the performance and financial situation of companies. To make the necessary decisions, in this chapter we have presented the basic documents of financial analysis such as the balance sheet, the income statement, and the appendices which provide information to know more about the company's financial situation.

# Chapter 2

# Financial Analysis: A Tool for Decision Making

## Chapter 2: Financial Analysis: A Tool for Decision Making

The decision-making function is seen as the core of the administrative process in all functional specializations across every company. It can be said that administrations that do not incorporate decision-making into their daily operations cannot be attributed to a managerial role. In this chapter, we will delve into the tools of financial analysis, the decision-making process, and the role of financial analysis in decision making.

### Section 1: Tools of Financial Analysis

After the financial analyst has formulated the balance sheet, they begin to study and analyze the company's financial situation based on financial balance indicators and financial ratios, among other operational analyses.

#### 1.1. Financial Balance via Working Capital "WC"

Once the financial analyst has formulated the financial budget, they start studying and analyzing the company's financial situation based on financial balance indicators, such as:

1.1.1. Definition: The overall net working capital is the portion of sustainable resources that contribute to the financing of current assets.<sup>15</sup>

In essence, working capital is defined as the amount of permanent resources (equity + long-term liabilities) remaining at the company's disposal after financing its stable uses (fixed assets). This amount is a guarantee of the company's liquidity - the higher it is, the larger the company's safety margin.

Working capital can be calculated via the balance sheet in two ways:

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<sup>15</sup> RAMAGE Pierre, *Analyse et diagnostique financier, Paris, organisation Edition. 2001. P71.*

## Financial Analysis: A Tool for Decision Making

### - From the top of the balance sheet

Determining the net working capital is quite straightforward in practice. It's the difference between permanent capital and fixed assets. The calculation formula is as follows:

$$\text{Working Capital} = \text{Permanent Capital} - \text{Fixed Assets}$$

### - From the bottom of the balance sheet:

Net working capital is usually calculated from the top of the balance sheet, but it can also be calculated from the bottom, as it represents the safety margin constituted by the excess of current capital over short-term debts.

$$\text{Working Capital} = \text{Current Assets} - \text{Short-term Liabilities}$$

The interpretation of working capital (WC) presents two cases:

- If  $WC > 0$ : "Permanent Capital > Fixed Assets".

A positive WC signifies that the company can finance all of its fixed assets with its permanent capital, and generate surplus resources, allowing it to cover a portion of the operating cycle. However, this positive indicator should not have a high value as this means that the institution heavily depends on costly permanent funds to finance its current assets, leading to a freezing of funds, which incurs an opportunity cost.

- If  $WC = 0$ : "Permanent Capital = Fixed Assets".

In this case, this means that the company has not been able to finance its investments and other financial needs using its permanent financial resources, and therefore must reduce the level of its investments to be compatible with its permanent financial resources.

# Financial Analysis: A Tool for Decision Making

- If  $WC < 0$ : "Permanent Capital < Fixed Assets".

In this case, permanent capital does not represent a sufficient amount to finance all fixed assets. This expresses an imbalance in the financing structure of the company's assets. This will force the company to finance the missing portion with short-term resources. In this case, it means that the company has not been able to finance its investments and other financial needs using its permanent financial resources, and therefore must reduce the level of its investments to be compatible with its permanent financial resources.

## 1.1.1. Types of Working Capital

There are four types of working capital: <sup>16</sup>

### 1.1.1.1. Net Working Capital (NWC)

This is the part of the permanent capital that contributes to the financing of the current assets. There are 2 methods to calculate it:

If you take into account the elements from the "top of the balance sheet", it represents the excess of permanent capital over net fixed assets and, consequently, the portion of permanent capital that can be allocated to the financing of current assets.

$$\text{Net Working Capital (Permanent)} = \text{Permanent Capital} - \text{Fixed Assets}$$

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<sup>16</sup> Elie COEN, *Analyse financière, 4th Edition, ECONOMICA Edition, 1997, P248.*

## Financial Analysis: A Tool for Decision Making

If you consider the elements from the "bottom of the balance sheet", the NWC represents the surplus of current assets, liquid within less than a year, over short-term debts due in less than a year.

$$\text{Net Working Capital (Permanent)} = \text{Current Assets} - \text{Short-term Liabilities (<1 year)}$$

### 1.1.1.2. Own Working Capital (OWC)

It represents an analytical utility significantly more limited than that of the net working capital, however, it is quite often calculated when it comes to assessing the autonomy of a company and the way in which it finances its fixed assets.

Own Working Capital (OWC) can be calculated by the following mathematical formulation:

$$\begin{aligned}\text{Own Working Capital} &= \text{Equity} - \text{Net Fixed Assets} \\ \text{Own Working Capital} &= \text{Current Assets} - \text{Long-term Debts} \\ \text{Own Working Capital} &= \text{Net Working Capital} - \text{Long-term Debts}\end{aligned}$$

1.1.1.2.1. The interpretation of Own Working Capital (OWC) represents two cases:

- If  $\text{OWC} > 0$ : this means that fixed assets are fully financed by the company's own resources, signifying that equity is greater than fixed assets.
- If  $\text{OWC} < 0$ : this means that fixed assets are only partially financed by the company's own resources, indicating that equity is less than fixed assets.

# Financial Analysis: A Tool for Decision Making

## 1.1.1.3. Foreign Working Capital (FWC)

Foreign Working Capital (FWC) allows us to appreciate how the company's total debts contribute to its financing.

The Foreign Working Capital (FWC) can be calculated by the following mathematical formulation:

$$\text{FWC} = \text{Long and Medium-Term Debts (LMTD)} + \text{Short-Term Debts (STD)}$$

$$\text{Foreign Working Capital} = \text{Current Assets} - \text{Working Capital}$$

$$\text{Foreign Working Capital} = \text{Total Liabilities} - \text{Equity}$$

## 1.1.1.4. Total Working Capital (TWC)

This is the sum of the current assets (operational value, realizable value, and available value), that is, the elements of the current assets. These are indeed likely to be converted into cash in the short term, and thus experience a renewal.

$$\text{TWC} = \text{Operational Value (OV)} + \text{Realizable Value (RV)} + \text{Available Value (AV)}$$

$$\text{TWC} = \text{Sum of Assets} - \text{Fixed Assets}$$

# Financial Analysis: A Tool for Decision Making

## 1.1.2. Working Capital Requirement (WCR)

### 1.1.2.1. Definition

Several definitions have been given for the working capital requirement, including the following: According to Hubert, "The working capital requirement is a very important indicator for companies. It represents the short-term financing needs of a company resulting from the timing differences between cash outflows (expenditures) and cash inflows (receipts) related to operational activity." <sup>17</sup>

According to Alain Marion, "The need for working capital exists due to the time lags that appear between committing expenses in the process of creating the product and the moment when the company recovers these funds at the end of the sales cycle." <sup>18</sup>

According to ROUSSELOT, "the WCR can be defined as 'the financing need essentially resulting from the ongoing running of purchase/product sales cycles. It therefore has an inevitable character, as it is linked to the company's current activity'." <sup>19</sup>

WCR = WCR from Operating Activities + WCR from Non-Operating Activities

### 1.1.2.2. Calculation Methods for WCR

There are two methods for calculating WCR as follows:

- The 1st method:

$$\text{WCR} = (\text{Operating Values} + \text{Realizable Values}) - (\text{Short-Term Debts} - \text{Financial Debts})$$

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<sup>17</sup> HUBERT de la BRUSLERIE, *Analyse financière, DUNOD Edition, 4th Edition, paris, 2010, P266.*

<sup>18</sup> ALAIN MARION, *Analyse financière, concepts et méthodes, DUNOD 1998, P30. 28*

<sup>19</sup> ROUSSELOT P, VERDIE J-F, *gestion de la trésorerie, DUNOD Edition, Paris, 1999, P16.*

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- The 2nd method:

$$\text{WCR} = (\text{Current Assets} - \text{Available Values}) - (\text{Short-Term Debts} - \text{Financial Debts})$$

There are three cases to interpret the Working Capital Requirement (WCR):

- If  $\text{WCR} > 0$ :

The WCR is positive: this means that the company has a need for operating financing, so cyclical uses are greater than cyclical resources.

- If  $\text{WCR} < 0$ :

The WCR is negative, which means there is an excess of operating resources. In this case, cyclical resources (Short-term Debt) are greater than cyclical uses (Operating Values + Realisable Values).

- If  $\text{WCR} = 0$ :

This situation means that short-term debt just manages to finance cyclical uses.

## 1.1.2.4. Types of Working Capital Requirement:

The WCR consists of two components, namely the operating working capital requirement (OWCR) and the non-operating working capital requirement (NOWCR).

$$\text{Working Capital Requirements} = \text{Operating Working Capital Requirements} + \text{Non-operating Working Capital Requirements}$$

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## 1.2.4.1. Operating Working Capital Requirement (OWCR)

The Operating Working Capital Requirement (OWCR) arises from the operating cycle and is derived from the difference between the operational financing needs (operating circulating assets) and the operational resources (operating circulating liabilities).<sup>20</sup>

These requirements have certain characteristics, such as:

- It depends on the company's level of activity;
- Improved operating conditions decrease the OWCR;
- It is relatively stable.

$$\text{Operating Working Capital Requirement (OWCR)} = \text{Operating Current Assets} - \text{Operating Current Liabilities}$$

**Table No. 9: The elements of the Operating Working Capital Requirement (OWCR)**

- Operating needs	- Operating resources
-Inventory and work in progress	- Advances and down payments received on current orders
-Advances and down payments on operating orders	- Tax and social liabilities
-Trade receivables and associated accounts	- Other operating debts
-Prepaid expenses related to operations	- Deferred income related to operations

Source: RAMAGE, Pierre, *Financial Analysis and Diagnosis*, Paris, Organization Edition. 2001, P74.

<sup>20</sup> RAMAGE, Pierre, *Analyse et diagnostic financier*, Paris, organisation Edition. 2001, P73.

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## 1.2.4.2. Non-operating Working Capital Requirement (NWC)

The NOWC corresponds to the other components of receivables and non-financial liabilities. By distinguishing the "non-operating circulating assets" needs from the "non-operating circulating liabilities" resources, we obtain NOWC. <sup>21</sup>

$$\text{Non-Operating Working Capital Requirement (NOWC)} = \text{Non-operating current assets} - \text{Non-operating current liabilities}$$

As a general rule, the Non-Operating Working Capital Requirement (NWC) is a relatively small amount compared to the Operating Working Capital Requirement (OWCR). If the non-operating current assets are less than non-operating liabilities, we are in the presence of a negative NWC, qualified as "net non-operating resources" or a surplus of non-operating working capital.

**Table No. 10: The elements of Working Capital Requirement**

- Non-operating needs	- Non-operating resources
- other receivables: - Advance corporate tax payments - Shareholders' current accounts - Receivable from disposal of fixed assets - Prepaid expenses outside of operations	- other liabilities: - debt on fixed assets - Tax debt - Other non-operating debt -Deferred income outside of operations

Source : RAMAGE, Pierre, *Analyse et diagnostic financier*, Paris, édition d'organisation. 2001.

<sup>21</sup> ALAIN RIVET, *gestion financière, Analyse et politique financière de l'entreprise*, ellipses Edition, paris, 2003, P252.

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## 1.1.2.5. Interpretation of Working Capital Requirement (WCR)

The working capital requirement presents the company with three scenarios, which are as follows:

- If WCR is positive ( $WCR > 0$ ):

In general, the level of inventory and receivables is higher than the level of operating debts. This is simply explained by the fact that the value of goods sold is higher than the value of goods consumed, leading to a logical discrepancy between the level of debts to suppliers and the level of receivables. This creates a need for financing, which is supplemented by inventory. The company typically meets these needs in two main ways:

- Either using its long-term resource surplus;
- Or resorting to short-term financing from banks (bank loans, etc.).

- If WCR is negative ( $WCR < 0$ ):

The company's needs are less than its operating resources, so it does not need to use its long-term resource surplus. This happens when current liabilities exceed the financing needs of its operating assets.

- If WCR is zero ( $WCR = 0$ ):

The company's operating uses are equal to its operating resources, which can cover all uses in full. The company has no financial needs but also has no financial surplus.

## 1.1.3. Financial equilibrium through net cash (TN)

Cash is defined as "the set of assets that can be quickly converted into cash for the settlement of short-term debts.

Cash represents all amounts of money that can be mobilized in the short term. It is an indicator of a company's financial health as it allows for the verification of the balance of its financial structure.

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## 1.1.3.1. Method of calculating net cash position

Net cash is calculated using two formulas, which are:

1st Method:

$$\text{Cash} = \text{Cash uses} - \text{Cash resources}$$

2nd Method:

$$\text{Cash} = \text{Working capital} - \text{Working capital requirement.}$$

## 1.1.3.2. Interpretation of cash

There are three cash situations:

- If the cash is positive

A positive cash balance, i.e., " $\text{NWC} > \text{WCR}$ ," signifies that permanent capital can finance fixed values and generate a surplus of working capital to finance the need for working capital. The financial balance is respected.

- If the cash is negative ( $\text{TN} < 0$ )

A negative cash balance, i.e., " $\text{NWC} < \text{WCR}$ ," signifies that the entirety of the WCR is not financed by stable resources. The company resorts to short-term bank loans to finance part of its WCR. This is not necessarily a bad situation as long as the turnover of operating receivables and debts allows for the repayment of current bank loans.

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- If the cash is null

A null cash balance, i.e., "WCR = NWC," signifies that the capital manages to finance fixed values without generating a surplus. In this case, it is preferable to increase working capital and reduce the working capital requirement.

## 1.2. Financial Analysis by Ratios

Financial ratios are a useful mechanism in financial analysis as they allow for interpreting the results of financial policies adopted by the company. They are also considered the most important means of financial analysis to study the financial situation of an institution and assess its outcomes.

### 1.2.1. Definition of Ratios

"A ratio is a relationship between two significant quantities (balance sheet items, income statement items), aiming to provide useful and complementary information to the data used for its calculation.

<sup>22</sup>

"A ratio is a relationship between two variable quantities between which there exists a logical relationship of an economic or financial nature. Without this logical link, a ratio is a simple number unexploitable in financial diagnosis."<sup>23</sup>

Ratios are tools for measuring and controlling the evolution of a phenomenon studied in financial analysis over time and space.

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<sup>22</sup> GRANGUILLOT B. et GRANDGUILLOT F, *Analyse financière, Gualino Edition, 4th Edition, Paris, 2006, P143*

<sup>23</sup> HUBERT de la BRUSLERIE, *Analyse financière, DUNOD Edition, 4th Edition, paris, 2010, p190.*

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- The study of ratios allows us to:
  - Monitor and measure the evolution of economic and financial performances as well as the structures of the company over time;
  - Make inter-company comparisons of identical business sectors relative to the practices of the profession;

## 1.2.2. Objectives and Interests of Analysis by the Ratio Method

Financial analysis by ratios allows the financial manager to track the progress of their company and to place the image it offers to interested parties such as shareholders, bankers, customers, suppliers, and staff. It should be noted that this is a retrospective vision. Indeed, for a company, having "good" ratios at the close of the fiscal year does not imply an immediately favorable future. Here are a few objectives: <sup>24</sup>

- The ratio method must be used with caution. For many economic acts, ratios are just a first step. They only give the manager a fragment of the information they need to decide and choose;
- The success of a financial decision essentially depends on the ability of managers to predict events. Forecasting is key to the success of financial analysis. As for the financial plan, it can take many forms. These should take into account the strengths and weaknesses of the company. It is imperative to know your strengths in order to exploit them correctly as well as weaknesses to better remedy them;
- Facilitate the economic and financial interpretation of the company's situation, and identify potential problems;
- Facilitate comparison between two or more similar companies;
- Serve as an indicator of the weak points and strong points that characterize the financial policy.

## 1.2.3. Different Types of Ratios

There are several typologies of financial analysis ratios, we thought it useful to present the most important categories of ratios. Generally, there are three main categories of ratios:

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<sup>24</sup> 25 VIZZAVONA Patrice, *Pratique de gestion analyse financière, Tome 1, Edition BERTI, 1991, p51.*

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- Solvency and financing ratios
- Liquidity ratios;
- Activity ratios;
- Profitability ratios

### 1.2.3.1. Solvency and Financing Structure Ratios

Structure ratios mainly analyze the major balance sheet items. They express the conditions under which the company ensures its financial balance. The main structure ratios are presented in the table below:

**Table N 11: Solvency and Financing Structure Ratios**

Name of Ratios	Calculation Formula	Significance
Financial Independence:	$(\text{Equity} / \text{Total Liabilities}) = 20\%$	This ratio compares funds linked to debt, and it's also called financial autonomy. It's also used by banks, and it's to determine to what extent the institution depends on internal financing. If the ratio is greater than 20%, it means that the company's equity is greater than its debt, which allows it to repay its debts.

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<p>Financing of Fixed Assets</p>	<p>Permanent Capital / Fixed Assets</p> <p>or</p> <p>Durable Resources / Fixed Assets</p>	<p>This ratio verifies the rule of minimum financial balance, which should be greater than 1. It indicates that the company has a financial safety margin that allows it to meet its needs arising from the operating cycle. This signifies a long-term balance.</p>
<p>Debt Repayment Capacity</p>	<p>Long and Medium-Term Debts / Self-Financing Capacity</p>	<p>This ratio measures the company's ability to repay its long-term and medium-term debts from its self-generated funds or earnings (self-financing capacity). If this ratio is lower, it indicates a stronger capacity of the company to repay its debts. If it's higher, it means that the company might have difficulties in meeting its debt obligations.</p>
	<p>Equity / Total Debts</p>	<p>This ratio indicates the extent to which the company is operating with equity and expresses the degree of financial independence of the</p>

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Financial autonomy	or  Equity / Permanent Capital	company with respect to its debt obligations. A favorable or generally accepted value for this ratio is when it is greater than 0.5 or 50%. In financial terms, it suggests that the company has a healthy proportion of equity financing its assets, which may indicate a lower risk profile from a creditor's perspective.
Solvency Ratio	Total Assets / Total DEBT	The Solvency Ratio is a key metric used to measure an enterprise's ability to meet its debt and other obligations. The solvency ratio indicates whether a company's cash flow is sufficient to meet its short- and long-term liabilities. with a higher ratio indicating a more solvent company. Lower values indicate higher financial risk.

Source : GERARD MEYLON, gestion financière, 2<sup>nd</sup> edition, Bréal edition, paris, 2007, P160.

### 1.2.3.2. Liquidity Ratios

Liquidity ratios measure a company's ability to convert its current assets into cash in order to meet its short-term obligations. Financial analysis traditionally recognizes three types of liquidity ratios:

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1. Current Ratio (General Liquidity Ratio)
2. Quick Ratio (also known as Acid-Test Ratio)
3. Cash Ratio (Immediate Liquidity Ratio)

**Table N°12: Representation of liquidity ratios**

Name of Ratios	Calculation Formula	Comment
Current Ratio	$\text{Current Assets} / \text{Short-Term Debt}$	Also known as the current ratio, this is another interpretation of the Net Working Capital (NWC, FRN in French). It provides insights into the company's ability to repay its short-term debts using its current assets. For a healthy financial state, this ratio should be greater than 1.

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Quick Ratio (Acid-Test Ratio)	$(\text{Realizable Value} + \text{Available Value}) / \text{Short-Term Debt}$	this measures a company's ability to meet its short-term obligations strictly through its most liquid assets, mainly cash and receivables. It provides a stricter view of the company's liquidity as it excludes inventory from the current assets.
Immediate Liquidity Ratio	$\text{Available Value} / \text{Short-Term Debt}$	This ratio, known as the cash ratio, measures a company's ability to pay off its short-term liabilities immediately using its most liquid assets (cash and cash equivalents). It is a stringent measure of liquidity and gives an understanding of the company's immediate solvency without relying on the sale of other current assets.

Source : GERARD MEYLON, gestion financière, , 2nd edition, Bréal edition, paris, 2007, P162.

### 1.2.3.3. Activity Ratios

These ratios allow us to appreciate the management policy of the main components of the operating cycle carried out by the company's leaders.

These ratios measure the efficiency of business management. The main management ratios can be summarized as follows:

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**Table N°13: Representation of Activity Ratios**

Name of Ratios	Calculation Formula	Comment
Supplier debt repayment period	$(\text{Accounts payable} \times 360) / \text{purchases (VAT included)}$	This ratio measures the duration of stay of the merchandise stock in the company.
Stock turnover	$(\text{average stocks} \times 360) / \text{stock consumption.}$	Stock turnover, or inventory turnover, is a measure of how efficiently a company manages its inventory. It calculates how often the company sells and replaces its stock within a specific period, usually a year. A high turnover ratio indicates effective inventory management, suggesting that products are sold quickly without excessive stock kept on hand. Conversely, a low ratio might point to overstocking or problems with the product or its marketing.

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Customer receivables collection period	$(\text{customer receivables} * 360) / \text{sales (VAT included)}$ .	This determines the number of days given to customers to settle the company's invoices. This ratio should not exceed 90 days, which is about 3 months.
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Source: established by me based on the documents consulted.

### 1.2.3.4. Profitability Ratios

Profitability ratios contribute to the evaluation of the company's performance by comparing its earnings capacity with significant metrics derived notably from the balance sheet, income statement

The profitability of a business can be considered from different perspectives due to the multitude of variables.

**Table N°14: Representation of Profitability Ratios**

Name of Ratios	Calculation Formula	Comment
Economic Profitability	Net Income / Total Assets	This ratio is of interest to the business owner. It measures the effectiveness of the economic resources of the work tool through the results they generate, and thus its industrial performance. If this

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		ratio is < 15%, it signifies that the company is not profitable enough.
Profitability on Equity	Net Income / Equity	This ratio interests the shareholder as it provides an appreciation of the returns on their contributions, either directly in the form of dividends, or indirectly in the form of potential capital gains for the portion kept in reserves. If this ratio is <15%, it indicates that the company is not profitable enough, and therefore, it raises the question of whether it's necessary to continue with the business, withdraw the investment, and channel it into another venture.
Commercial Profitability	Net Income / Gross Sales (excluding taxes)	This ratio indicates the profit made for every 100 da of sales revenue.

Source: established by me based on the documents consulted.

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## 1.3. Analysis by Intermediate Management Balances (Income Statement)

This includes the sum of intermediate results provided by the income statement and how they are distributed until the net annual result for the fiscal year is reached, which are:

### Gross Margin (or Commercial Margin)

This is the difference between the sales of goods and their purchase costs, as the sales of goods are valued on the basis of the selling price after subtracting the discounts given to customers, while the cost of goods sold is calculated on the basis of the purchase price of the goods plus the total related expenses. Gross margin is of great importance in the operation of the business as it expresses the real source of its profits as well as an indicator to evaluate its activity.

### Value Added

This represents the real wealth added by the institution, regardless of its type, due to its operating activities, as it reflects the efficiency with which the elements of production of capital, labor, and others have been integrated. It measures the economic weight of the institution and constitutes the best standard for measuring its size, growth, and production structures.

### Operating and Non-Operating Income

Operating income measures the economic efficiency of a company under normal circumstances and relates to elements associated with a company's daily activities. Non-operating income is an exceptional result determined by the entity's exceptional activity.

### Net Income for the Year

Net income for the year indicates what remains at the disposal of the company after payment of employee participation and corporate tax, or the partners' income after tax. It allows the calculation of the company's financial profitability. The net income for the year is determined by the sum of the current result and the exceptional result minus the participation of employees in the company's results and corporate tax.

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## 1.3.1. Self-Financing Capacity (S.F.C.)

The self-financing capacity represents for the company the surplus of internal resources or the potential monetary surplus generated during the financial year, by all of its activity and which it intends to self-finance.

### 1.3.1.1. Calculation Method:

There are two methods of calculating the S.F.C.: the subtractive method and the additive method.

#### □ Additive Method:

The self-financing capacity can be achieved by the additive method starting from the result of the exercise by adding the charges not resulting in disbursement and by deducting those not resulting in disbursement.

**Table N°15: presentation of the method of calculating the S.F.C. from the net result.**

Net income for the year
(+)Depreciation, impairments and provisions
(-)Reversals of depreciation, impairments and provisions
(+)Book value of assets sold
(-) Proceeds from the disposal of fixed assets
(±)Portions of investment grants transferred to the results of the year
= SFC (Self-Financing Capacity)

Source : PIGET.P, gestion financière de l'entreprise, 2<sup>nd</sup> , ECONOMICA Edition, paris, 1998, page 68.

#### The subtractive method:

The subtractive method explains the formation of self-financing capacity from the gross operating surplus (EBITDA), which is obtained from the difference between collectible products and operating activity charges:

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**Table N°16: presentation of the SFC calculation method starting from EBITDA**

Gross operating surplus (EBITDA)
(+) Other operating income
(-) Other operating expenses
(+) Transfer of charges
(+) Collectible financial income
(-) Financial expenses (except provision reversals)
(+) Exceptional income (except income from disposal of assets)
(-) Exceptional expenses (except book value of disposed assets)
(-) Employee profit sharing
(-) Corporate tax
= Self-Financing Capacity (SFC)

Source : PIGET.P, gestion financière de l'entreprise, 2<sup>nd</sup>, ECONOMICA Edition, paris, 1998, page 68.

## Section 2: Generalities on Decision Making

The decision-making process is a critical and sensitive aspect of management in administration. As a mistake can lead to additional costs for the business, we have dedicated this topic to present comprehensive and brief information on this process.

### 2.1. Decision Making

#### 2.1.1. Definition of Decision

There are many definitions. : "To decide is to choose one of several possible actions to achieve a goal (solve a problem, seize an opportunity). It is the culmination of a thought process that allows one to move out of uncertainty." <sup>25</sup>

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<sup>25</sup> DHENIN. J-F, FOURNIER.B, 50 Thèmes d'initiation à l'économie d'entreprise, Bréal Edition, Paris, 1998, p17

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"Making a decision means making a choice between several options, providing a satisfactory solution to a problem. For example, when a company has to manage its production system or meet a customer's particular demands, it has to make decisions. A decision is defined as making a choice by comparing several possibilities. To manage a company, managers continuously make choices. Without decision-making, the company cannot function."<sup>26</sup>

## 2.1.2. The Stages of the Decision-Making Process

If you follow a suitable process and train your teams to implement it, you will achieve better results. If the process is continually improved, follow the following steps:<sup>27</sup>

### □ Step N°1: Define a clear goal

The process starts by defining a clear objective. This is a crucial point as all decision-making aims at a meaningful goal.

### □ Step N°2: Lay the groundwork for success

This involves creating the conditions for effective decision-making. The favorable conditions for decision-making involve having the right people, bringing them together in a suitable location, ensuring they agree on the decision-making process, and encouraging a diversity of viewpoints and a healthy debate.

### □ Step N°3: Understand the problem well

Good decision-making depends on understanding the issues at hand and their impact on the company's objectives. Understanding the problem well is the second step in the decision-making process. A framework is a mental window through which we visualize a problem, a situation, or an opportunity. According to Alan Rowe, frameworks are prisms through which we see the world. They determine what we see and how we interpret what we see. A poorly understood question may never find an answer. However, if you have framed a problem well, you are halfway to the solution.

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<sup>26</sup> BRENNEMANN Rudolf, S. SEPARI « Economie d'entreprise », DUNOD Edition, paris, 2001, P57

<sup>27</sup> Richard Luecke, Alan J. Rowe, *l'essentiel pour bien décider*, les Echos Edition, paris, P18.

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## □ Step N°4: Consider alternatives

After understanding the problem, as a decision-maker, you should consider several possible solutions. Without alternatives, there is no real decision. The decision-makers should not just say yes or no to a single alternative. The right approach is to think, "This is an interesting idea, but there must be others. Let's take the time to consider other options." Searching for alternatives is essential for decision-making.

## □ Step N°5: Evaluate alternatives

When faced with a choice, you should assess the feasibility, risks, and implications of each of the available options. Variables to evaluate alternatives include:

- Costs. What investment does the alternative require? Will it allow for immediate or long-term savings? Are there hidden costs? Are there other expenses to be expected later? Is this option compatible with the budget?
- Benefits. What profits can be derived from the implementation of a given solution? Will the quality of the products be improved? Will customers be more satisfied? Will our teams be more efficient?
- Financial implications. What are the consequences of the costs and profits on the company's net result? How do these effects spread over time? Will it be necessary to borrow money to implement the decision?

When making a decision, you must take all these variables into account. Obviously, some are more important to the company than others. As every choice involves a projection into the future and thus into the unknown, it is inevitable to go through gray areas.

## □ Step N°6: Make the right choice

Making a wise decision is as much an art as a science and requires, in addition to technical mastery, good judgment, and creativity.

Just like other major activities in the company, decision-making becomes more effective and better quality when it follows a process. Without a method, choices are made haphazardly.

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## 2.1.3. Factors influencing decision making

Several elements can positively or negatively guide decisions. Among these elements, we can briefly consider the following: <sup>28</sup>

### 2.1.3.1. The influence of the external environment

This external environment (national but also international) is made up of all the existing economic, social, and political conditions at a given time. The influences of this environment can be positive or negative depending on the degree of stability or turbulence characterizing the aforementioned conditions.

### 2.1.3.2. The influence of the internal environment

Among the internal factors influencing the decision-making process, we can mention factors related to the size, growth rate of the company, etc., those due to the organizational structure, the system, and method of communications as well as the nature of the dominant social relationships within the company, but also the training and qualification of personnel, the provision of technical and financial means.

### 2.1.3.3. The influence of the personality of the leader

The decision-making process is closely linked to the psychological and intellectual characteristics of the leader. Intelligence, competence, experience, and also moral integrity are determining factors in the behavior of leaders. Furthermore, the objectives specific to the leader can diverge from the objectives of the company, which undoubtedly influences the direction of the conception of decisions.

### 2.1.3.4. The influence of decision-making conditions

Hesitation in decision-making is considered a negative factor insofar as it causes (or risks doing so) the temporal inadequacy of the solution brought to a problem. Hesitation is often due to objective difficulties in forecasting the future. This is the whole problem of decision-making in risk

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<sup>28</sup> Richard LUECKE, Alan J. ROWE, *l'essentiel pour bien décider*, les Echos Edition, paris, 2011, P26

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and uncertainty. In general, the degree of risk and uncertainty is linked to the absence or availability of data.

## **2.1.3.5. The influence of the importance of the decision**

The importance of a problem always requires a deepening of studies to guard against the risks inherent in a misunderstanding (of the problem) and therefore a bad decision. This is especially the case for strategic decisions that commit the future of the company.

## **2.1.3.6. The influence of time**

Time is generally a constraint for the decision-maker, especially when it comes to making decisions at the opportune moment. A delayed decision may have no effect on the solution to an urgent problem, especially if this delay in decision-making complicates the problem even further. Choosing the appropriate time means taking advantage of the opportunity when the decision can achieve better results. The choice of the right time depends on the manager's ability to achieve stability and a good understanding of the influences of the internal and external environment.

## **2.2. Types of financial decisions**

The decision taken by the decision-maker varies according to the administrative position he holds and the extent of the powers he holds. This section is devoted to the types of decisions and types of financial decisions.

### **2.2.1. Classification of decisions**

The company, during its life, can encounter several problems, requiring decision-making or the search for ways to solve them. Therefore, decisions can be of a very diverse nature. Several types of decisions are distinguished, which are classified according to different factors:

#### **2.2.1.1. Classification according to time**

##### **2.2.1.1.1. Short-term decisions**

These are routine decisions whose effect is short-term, they are easily reversible in case of error. The main characteristics of short-term decisions are:

- The speed of decision-making;

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- The effects of the decision are felt quickly but they are not very lasting;
- Corrective measures can be taken quickly.

### 2.2.1.1.2. Medium-term decisions

They commit the company for a period that can range from 1 to 5 years, they are also reversible but with a higher cost for the company than in the context of a short-term decision.

### 2.2.1.1.3. Long-term decisions

They give directions on the company's long-term activity, they are difficult to reverse. The main characteristics of long-term decisions (+5 years) are:

- The effects are felt over several exercises and sometimes begin to be felt
- Corrective actions are difficult, slow, costly, reversing the decision is sometimes impossible;
- The preparation of these decisions is relatively long.

### **2.2.1.2. Classification according to purpose**

Igor Ansoff proposed three categories of operating decisions that can be made at the company level:

#### 2.2.1.2.1. Strategic decisions

Are made by the company's general management. They concern the general orientations of the company. They have a long-term implication and commit the company's future. They carry significant risk.

The strategic decision is explained as follows:

- They are made by the general management;
- They are unique and unpredictable (it is not possible to program them);
- They will concern the entire organization;
- They commit the company in the long term;
- They can commit the survival of the company;
- They are irreversible (or very difficult and often at the cost of significant expenses).

Examples: launching a new product, abandoning an activity, merging with another company.

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### 2.2.1.2.2. Tactical decisions

These relate to the management of the company's resources; that is, the development of its resources, acquisition and research of new resources and general organization of the implementation of its resources.

The tactical decision is explained as follows:

- They are made by senior management;
- They are infrequent and unpredictable;
- They are an extension of strategic decisions;
- They commit the company in the medium term;
- They are important but do not commit the survival of the company.

Examples: launching an advertising campaign, acquiring production equipment, recruiting a senior executive.

### 2.2.1.2.3. Operational decisions

These have a limited scope and carry a minor risk. They are made by supervisory staff or employees, and are linked to the daily operation of the company. They make short-term adjustments to the company's resources. These decisions aim to make the operation of the company as efficient as possible. These are the most pressing, most prominent decisions.

Examples: purchasing office supplies, organizing work schedules.

## **2.3. Financial Decision Types**

In this section, we will try to define and present the different types of financial decisions within a company, which are investment decisions, financing decisions, and profit distribution decisions.

A financial decision can be defined as follows: the optimization of the firm's financial structure and ways to improve their financing conditions.

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## 2.3.1. Investment Decision

The decision to invest is a crucial one as it commits the company over a long period. This type of decision in a company is analyzed based on a comparative study of future forecasted cash flows compared to the value of those invested in acquiring the means that generate future revenues.

### 2.3.1.1. Definition of Investment Decision

We can say that the investment decision is the one based on choosing the investment alternative that gives the highest return on investment from two or more alternatives.

Investment decisions are limited to choosing the type of assets to be used by the company's management to yield future returns.

### 2.3.1.2. Characteristics of Investment Decisions

Every investment decision has several characteristics, the most important of which are:

- The investment decision is strategic and must look to the future;
- The investment decision incurs significant fixed costs that are not easy to adjust or revise;
- The investment decision always extends to future activities and is thus often associated with a degree of risk.

### 2.3.1.3. Types of Investment Decisions

Investment decisions have numerous classifications, and one of the most important and common is the following:

#### - Investment Prioritization Decisions

In this case, the investment decision is made among several potential and possible investment alternatives to achieve the same objectives. The investor faces the process of choosing the best alternative based on the extent to which a return or benefit is provided to him over a certain period. Then the investor arranges investment priorities according to his preferences, organizing alternatives based on this aspect.

## **Financial Analysis: A Tool for Decision Making**

### **- Decision to Accept or Reject the Investment**

In this case, the investor has an alternative to invest his money in a specific activity or keep it, that is, his acceptance of the opportunity or his rejection due to the impossibility of implementing it.

### **- Single Activity Investment Decisions**

In this type of decision, investment opportunities are numerous, but in the case where the investor chooses one of these opportunities in a particular activity, this does not allow him to choose another activity.

### **- The Relationship of Investment Return to Risk**

The investor's acceptance of the return is related to his attitude towards the risk he is exposed to. Therefore, each investor prefers a certain degree of risk. There is an investor who avoids risk and there is an investor who likes risk, therefore, the expected return is what the investor accepts in exchange for the risk he bears.

#### **2.3.1.4. Evaluation of Investment Proposals**

Projects are evaluated and compared to each other through the study and analysis of the profitability of each alternative. Still, to accept the investment, it is necessary to use financial analysis to determine the conditions of financial liquidity and the impact of the investment on the financial structure.

And it is necessary to do this:

**Liquidity Analysis:** This analysis aims to understand the cash flow during the period of implementation and operation of the investment.

**Capital Structure Analysis:** This analysis aims to identify the degree of compatibility between investment and financing, i.e., verify that the source of financing is compatible with the investment in terms of type and duration.

# Financial Analysis: A Tool for Decision Making

## 2.3.2. Financing Decision

The company needs decisions aimed at financing its production operations, through several financing modes to achieve returns.

### 2.3.2.1. Definition of the financing decision

We can define the financing decision as the decision that examines how the company obtains the necessary funds for investment: should it issue new shares or borrow money? These are decisions related to the determination and formulation of the company's financing structure or through which it manages to choose the optimal financing structure to maximize its market value.

### 2.3.2.2. Types of financing decisions

There are two types of financing decisions in a company:

- Decisions concerning the determination of the appropriate mix of short-term financing, which is one of the most important decisions affecting profitability and liquidity.
- Decisions aimed at determining which is more advantageous for the institution, short-term or long-term loans at a specific moment, through a thorough study of available alternatives, the cost of each alternative, and its long-term implications.

### 2.3.2.3. Factors affecting the sources of financing

Choosing the appropriate sources of financing, that is, determining the appropriate financing structure for the project, leads to reducing costs to a minimum.

- The cost of different sources of financing.
- The financing source is suitable for the field in which the funds are used.
- Establishing cash liquidity in the company and its policy;
- Restrictions imposed by the lender on the borrowing company, usually related to the guarantees provided, profit distribution policies, or restrictions on other financing sources.

### 2.3.2.4. Financing structure and its role in choosing financing sources

The term financial structure is a set of concepts that have several meanings in its broad sense. When we talk about the financial structure of the company, we are referring to all the resources that

## Financial Analysis: A Tool for Decision Making

finance the company, whether it be equity, long-term debts, short-term debts, or operating resources.<sup>29</sup>

The company's financing method affects its profitability and it is therefore necessary to choose the appropriate financing structure, that is, a homogeneous mix of financing sources, through which management can maximize its profitability level and thus achieve its objective of maximizing the owner's wealth or the market value of the company.

### 2.3.3. Corporate financing sources:

#### □ Selection of external financing sources

The choice of the appropriate financing source is influenced by numerous factors, including internal factors related to the project itself, external factors, the nature of the financial policies followed, the objective of the project, its financial capabilities, its reputation in the market, the efficiency of management, future prospects, the availability of financing, its sources and its cost, all factors that influence the choice of the best financing method. In general, there are two main financing sources:

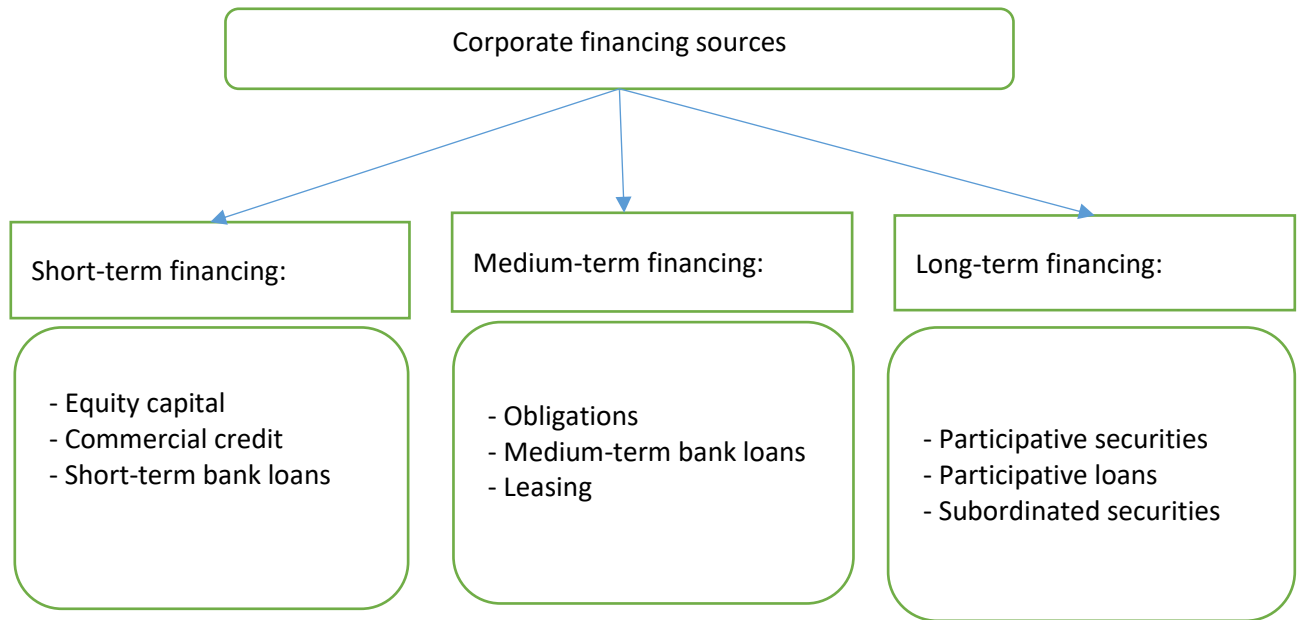
- First source: Borrowing involves obtaining money from third parties in the form of loans through the issuance of bonds or long-term bank loans.
- Second source: Ownership, which is the source that project owners rely on by issuing new shares or using undistributed profits and reserves for financing.

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<sup>29</sup> G.DEPALLESNS JJ.JOBARD, *Gestion financière de l'entreprise, 11th Edition, Sirey Edition, paris,1997, P811*

# Financial Analysis: A Tool for Decision Making

Figure No. 2: Presentation of various forms of corporate financing.



Source: established by me based on the documents consulted.

## 2.3.4. Financial decision-making <sup>30</sup>

Financial decisions can be divided into two: short-term decisions and long-term decisions.

### □ Short-term decisions

These types of decisions relate to cash flow management. Generally speaking, cash flow management encompasses all decisions, rules, and procedures that ensure the financial balance of the company is maintained at the lowest cost. The treasury therefore plays a fundamental role in the company. It achieves the short-term balance between the relatively constant working capital and the fluctuating working capital requirements. The variation in treasury over time corresponds to the net variation of financial discrepancies resulting from operations with third parties, for example, the payment to suppliers or the collection of sales from customers. To maintain this

<sup>30</sup> Elie Cohen, *gestion financière de l'entreprise et développement financier*, EDICEF Edition, paris, 1991, P287.

## **Financial Analysis: A Tool for Decision Making**

balance, cash flow forecasts must be made based on assumptions concerning the variations of working capital and working capital requirements.

- Long-term decisions

Long-term financial decisions, on the other hand, focus on the choices of various sources of financing for non-current operations that the company plans to carry out; the most common is investment. The company inventories all the means available to it and chooses the most efficient mode (allowing it to achieve its goal at the lowest cost). In practice, certain constraints that significantly reduce the company's range of possibilities must also be taken into account. For example, if the company has a very critical asset situation, it would be difficult, if not impossible, to negotiate bank credit contracts. Indeed, financial autonomy, which assesses the possibility of repayment, is one of the criteria for credit allocation. In this case, equity financing is also to be excluded.

### **Section 3: Financial Analysis as a Decision-Making Tool**

Financial analysis plays a significant role in decision-making, providing a precise and detailed view of the company's financial situation by analyzing financial statements. The balance sheet is considered one of the most important of these statements as it shows the company's financial position. To make decisions, the financial analyst must consider all information relating to the company to find the best alternative that aids decision-making and identifies the best way for the company to make its decisions, and to identify strengths and weaknesses.

#### **3.1. The Role of Financial Balance Indicators in Decision Making**

Financial balance indicators give us the actual situation of the company as they assess the performance of the company. They provide the financial manager with information to make decisions related to the optimal sources of financing and planning decision. In addition to this, it provides information on the company's liquidity and financial structure, thus helping to make the proposed investment decision.

## Financial Analysis: A Tool for Decision Making

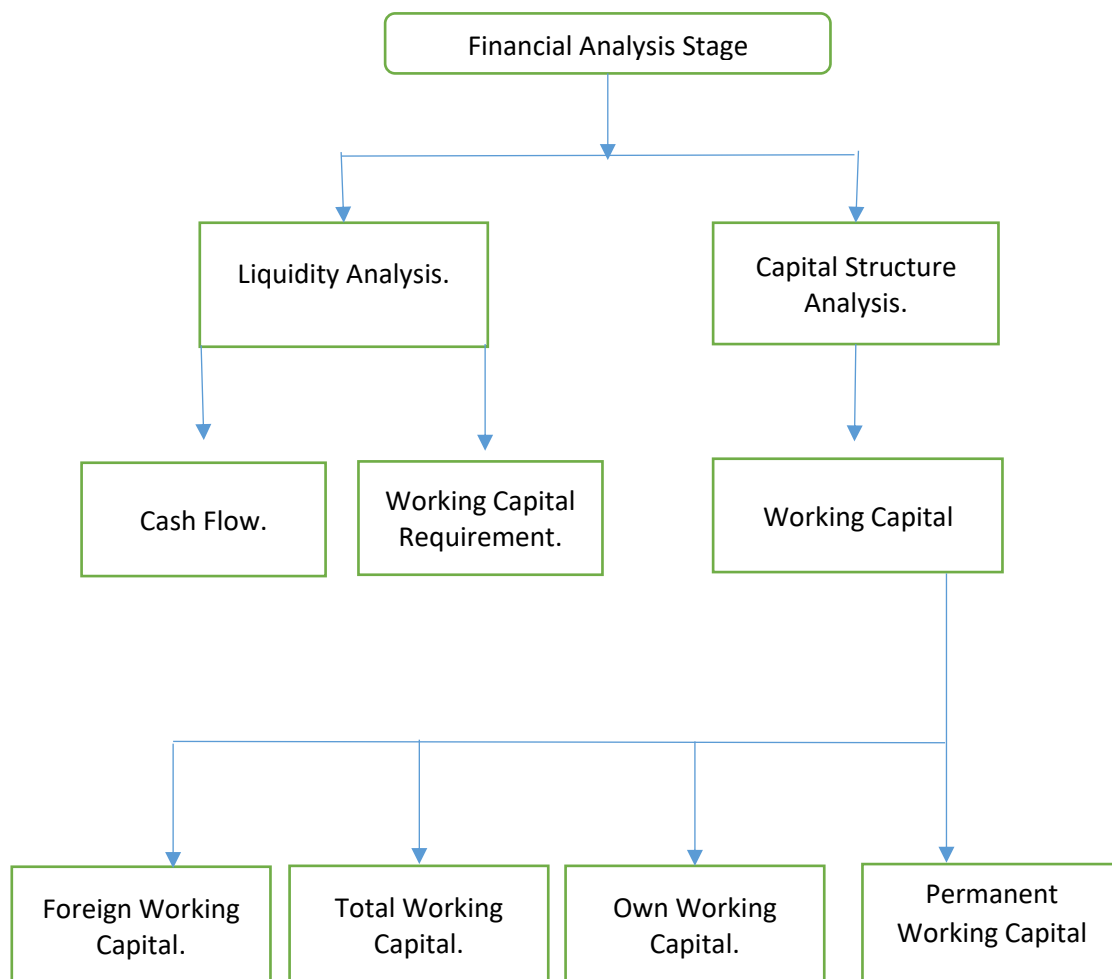
In the specific step of financial analysis, this analysis is carried out over the expected lifespan of the investment to ensure that the necessary funding is available for its implementation and that the investment results in liquidity to cover its liabilities.

- Liquidity Analysis: This analysis aims to understand the cash flow during the implementation period.

- Capital Structure Analysis: This analysis aims to ensure that financing is consistent with the investment in terms of the type and duration of fixed investments or working capital.

Figure 14: Representation of the financial analysis phase using financial equilibrium indicators

**Figure 3: Presentation of the financial analysis stage through financial balance indicators.**



Source: established by me based on the documents consulted.

# Financial Analysis: A Tool for Decision Making

## 3.2. The role of financial ratios in decision making

The main objective of financial analysis through ratios is to understand the data contained in the financial statements and financial reports to establish a basis of information that assists the decision-maker in his work. The large number of these ratios allows analyzing important information about profitability and debt, and the analysis of a ratio does not provide enough information to make decisions. The ratio plays a role in decision-making.<sup>31</sup>

- Liquidity ratios: it aims to assess the short-term financial capacity of the establishment, so that these ratios create a conducive climate for decision-making, the most important of these decisions being the financing decision and the credit decision.
- Profitability ratios: The analysis of profitability ratios expresses the effectiveness with which the company makes its investment and financial decisions.
- Activity ratios help in making financial planning and control decisions and taking corrective measures. They also assess the achievements and activities of the company.

### 3.2.1. Uses of financial ratios in decision making

#### 3.2.1.1. The use of financial ratios in financial planning

In order for the company to make decisions related to future operational performance, as well as list the estimated financial situation using financial ratios, personal estimates, and financial ratios for similar companies from the industrial sector.

#### 3.2.1.2. The use of financial ratios in the general expenditure decision

Financial ratios are used to estimate the cash flow that has entered the process of evaluating investment expenditure projects using several methods. If the proposal is the same for financial investments, then it is acceptable to use the company's financial ratios to estimate the size of financial assets, securities, and shares that help us make decisions.

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<sup>31</sup> 32 LESLOUS Moubarak, *gestion financière, 2<sup>nd</sup> Edition, OPU Edition, Alger, 2012, page 16.*

# **Financial Analysis: A Tool for Decision Making**

## **3.3. The role of operational analysis in decision making**

For the analysis of job operations, it defines responsibilities by jobs, that is, it defines the jobs that contribute most to achieving the result and helps to separately define operational policies and to divide them at the end of the cycle. Therefore, this aids in making production-related decisions, such as the decision to abandon a specific product that contributes to a high degree of result and assists in control and making corrective decisions and making planning decisions.

### Conclusion

This chapter is represented by the role of financial analysis in decision-making, and we conclude that the decision-making process requires a huge amount of information related to financial decisions due to their importance and the characteristics that distinguish them.

Financial analysis remains an indispensable tool in business management insofar as it contributes to providing insights into the financial health of the company, its financial balance, and its profitability, in order to facilitate decision-making.

Financial analysis plays a major role in decision-making as it is considered a source of information. Each financial analysis tool has a role in decision-making, starting with ratios and balance indicators that inform us about liquidity, activity, profitability, etc., followed by operational analysis which informs us about the operating cycle.

# Chapter 3

# **Case Study in CHIALI Company**

## **Chapter 3: Case Study in CHIALI Company**

Every economic enterprise, whether it's commercial, industrial, or a service, primarily aims to make a profit through the optimal use of available resources. This is to ensure its survival or continuity, achieve a comfortable financial situation, and make the best decision to reach this goal. Every enterprise must evaluate its performance using financial analysis tools. Among these enterprises is CHIALI, which is the subject of our study.

In this chapter, we relied on the accounting data and documents of the company. We have divided this chapter into two sections. The first section introduces CHIALI GROUP, providing a historical overview and definition in terms of its activities, location, size, tasks, organizational structure, objectives, and success factors. In the second section, we discussed financial analysis and its role in decision-making within CHIALI.

### **Section 1 Presentation of CHIALI Company**

#### **1.1. Brief history of CHIALI.**

Groupe CHIALI's history begins in 1981 with the establishment of STPM CHIALI, now known as CHIALI TUBES. This mother company specialized in manufacturing PVC pipes used in drinking water and irrigation networks.

The company expanded in 2004 by creating STPM SERVICES, currently known as CHIALI SERVICES. This new subsidiary offers engineering and project execution in the fields of public works, hydraulics, irrigation, and the environment.

By 2007, the group had grown to four subsidiaries with the creation of CHIALI PROFIPLAST, which focuses on the manufacturing of PVC profiles for joinery and PEHD and PVC pipes.

## **Case Study in CHIALI Company**

In 2012, the group launched the brand NAWAFID, which provides solutions for PVC joinery, including windows, doors, French doors, and roller shutters.

Four years later, in 2016, the CHIALI ACADEMIE was established. This school was created to handle internal training plans for all subsidiaries.

2017 saw the creation of two new subsidiaries: CHIALI TRADING and ALTIM. CHIALI TRADING specializes in the distribution and marketing of products manufactured by the GROUPE CHIALI, while ALTIM, a joint venture between GROUPE CHIALI and GROUPE ERHAS, focuses on the injection of plastic irrigation parts.

In recent years, the group continued to diversify with the establishment of CHIALI GLOBAL-PACK and CHIALI IMMOBILIER in 2021. CHIALI GLOBAL-PACK specializes in the production of plastic film, and CHIALI IMMOBILIER focuses on the design and execution of integrated and smart standing real estate projects.

Finally, in 2022, the group added CHIALI Accessories to its portfolio. This subsidiary specializes in the distribution of hardware, accessories, and closure systems for PVC joinery.

### **1.2. Company's Activity**

CHIALI GROUP is an Algerian powerhouse in the thermoplastic pipe manufacturing industry.

As a trusted provider of comprehensive and reliable solutions, the CHIALI GROUP addresses an extensive range of sectors including Water, Energy, Agriculture, Building, and Telecom. Through its eight operational subsidiaries, the company has managed to gain a substantial foothold in the respective domains.

Boasting seven production sites, CHIALI GROUP has been responsible for the creation of an impressive 600 different products. This extensive range of products is commercialized under an inventory of 2400 offerings, catering to a diverse set of client needs and applications.

## Case Study in CHIALI Company

CHIALI GROUP is proud to employ a strong workforce of 2500 direct staff members, whose contributions are invaluable in driving the company's vision forward. Ensuring widespread reach and accessibility of its offerings, the company has established an expansive distribution network involving 250 distributors and resellers.

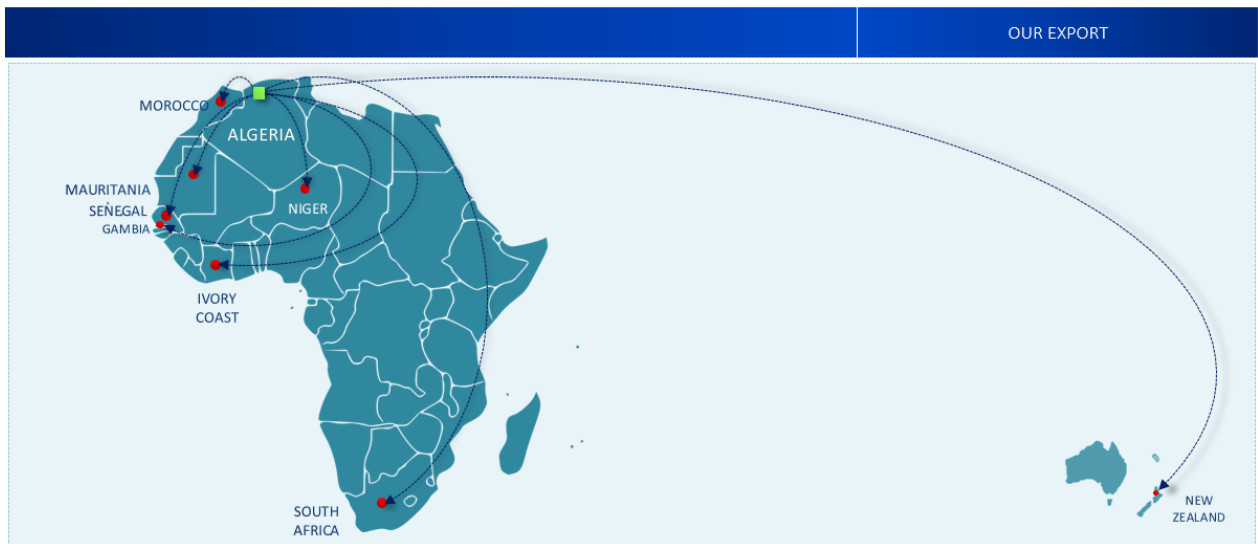
Here are some of the standout products manufactured by CHIALI GROUP:

1. HDPE Aspersions Kit: Essential for irrigation purposes, ensuring water is effectively delivered where needed.
2. Fencing Signal Mesh: Ideal for marking boundaries or establishing secure perimeters.
3. PVC-U Sewerage Joint Pipes: Crucial for managing wastewater and ensuring efficient sewerage systems.
4. Glued PVC-U Drainage Pipes: To direct and control the flow of water in drainage systems.
5. HDPE Natural Gas Network Pipes: Utilized in the transportation of natural gas safely and efficiently.
6. HDPE Water Transfer Pipes: A durable solution for water transfer systems.
7. Multilayer Sanitary and Heating Pipes: A reliable option for both sanitary and heating applications.
8. HDPE PE100 Water Distribution Pipes: High-quality pipes designed for the effective distribution of water.

CHIALI GROUP continues to be a leader in the industry, constantly innovating and expanding its offerings to better serve its clients. Its commitment extends beyond national borders, as the group now proudly exports its quality products to eight different countries. Regardless of location, CHIALI GROUP maintains its dedication to excellence in both product quality and customer service, working tirelessly to meet the demands and exceed the expectations of its global clientele.

# Case Study in CHIALI Company

Figure 3 : CHIALI EXPOTS



Source: CHIALI SPA

Under the umbrella of CHIALI GROUP, eight operational subsidiaries work synergistically, each bringing unique expertise and innovation to the table

You can then proceed with introducing each of the subsidiaries.

## CHIALI TUBES

CHIALI TUBES, a subsidiary of GROUPE CHIALI, operates two factories specializing in thermoplastic pipes. The PVC factory produces pipes for rainwater and wastewater drainage, sanitation, and telecommunication networks. The PE factory manufactures high-density polyethylene (PEHD) pipes used for potable water supply and distribution, natural gas, irrigation, telecommunication networks, and sanitation networks.

The company's activities cover the production of polyethylene and unplasticized polyvinyl chloride (PVC-U) pipes, CHIALI PEX multilayer pipes, and warning grids for network signaling. They also provide comprehensive technical solutions for network realization, including various kits and accessories for PEHD and PVC networks, and welding equipment for PEHD pipes.

## **Case Study in CHIALI Company**

CHIALI TUBES offers after-sales services, product quality assurance, assistance in configuring pipe networks, product selection assistance, and training in product use, installation, assembly, and welding techniques.

### **Chiali Services Spa**

**Chiali Services Spa** is a wholly-owned subsidiary of the Chiali Group. The company has been operational for several years in the field of engineering and the execution of projects in public works, hydraulics, irrigation, and environment. Chiali Services is qualified by the ministries of water resources, public works. The company prides itself on having a highly skilled workforce, an array of efficient machinery, and a proven track record in project management. Its corporate culture is based on dialogue, work quality, and customer service quality. It aims to become a major player in the field.

The company was established on March 1, 2006, and has 501-1000 employee. Furthermore, Chiali Services specializes in the study, engineering, realization, and operation of hydraulic projects (hydraulic networks and water treatment installations), as well as the study and realization of roads and various networks. The company is involved in sectors like Civil Engineering, Environment & Natural Resource Management, Roads & Bridges, and Water & Sanitation.

### **CHIALI Profiplast**

CHIALI Profiplast, a subsidiary of the CHIALI Group, specializes in producing PVC profiles for joinery and PEHD and PVC thermoplastic pipes. The company operates two factories, one for PVC profiles and another for PE and PVC pipes. The main focus is on the production of large-diameter PEHD pipes used in water supply, distribution, and sanitation networks. In addition to manufacturing, CHIALI Profiplast provides complete technical solutions for network implementation, offering a variety of accessories, fittings, and welding equipment. They also offer customer support services such as after-sales service, product compliance assurance, assistance in product choice, and training in product usage, assembly, and installation.

# **Case Study in CHIALI Company**

## **Chiali Trading**

Established in 2017, Chiali Trading is a crucial arm of the CHIALI GROUP, focused on distributing and commercializing products for professionals and the public. Specializing in the building and irrigation sectors, our mission is to offer complete, reliable solutions.

With a strong national distribution network and large storage platforms, it ensures a seamless supply to distributors and resellers. In addition to distribution, it offers technical studies and on-field support through a qualified team.

## **Chiali Academy**

Established in 2017, Chiali Academy is dedicated to managing internal training for all CHIALI GROUP subsidiaries. Its primary mission is to drive organizational transformation through a collaborative, relevant skills development policy. It provides extensive training covering all group activities, including logistics, production, maintenance, sales, and human resources. In addition to serving its internal team, Chiali Academy offers technical training to external clients, promoting professional growth and performance enhancement.

## **Chiali Global Pack**

Chiali Global Pack, a subsidiary of Chiali Groupe, produces industrial packaging and agricultural films. They aim to expand into the agri-food, pharmaceutical, and cosmetic sectors, offering customizable, high-resolution printed packaging.

## **Chiali Immobilier**

Chiali Immobilier is a real estate company with over 40 years of experience. It guarantees high-quality and high-standard new homes, adhering to values of integrity, longevity, and respect for deadlines. The company oversees the entire real estate process, from land acquisition and project construction to property delivery and residence management. Customers are ensured a tranquil home-buying experience with the certainty of moving in as planned.

# Case Study in CHIALI Company

## Chiali Accessoires

Chiali Accessoires, a subsidiary of the Chiali Group, specializes in distributing high-end hardware and accessories for PVC doors and windows. The company is rooted in innovation, focusing on aspects such as anti-burglary protection, comfort, thermal and acoustic insulation, and energy efficiency in its offerings. Through collaborations with leading international partners, they provide Algerian customers with quality products, enabling manufacturers to produce competitively priced, high-quality doors and windows.

## Section 2: Financial Analysis and Decision-Making in the Company

After studying various tools used in financial analysis to make judicious decisions that ensure the future of a company, as it reflects the overall state of the company's situation, this helps to shape decision-making capabilities through financial balance indicators and financial ratios, and an analysis of the income statement (operational analysis), we will apply this in practice by studying the case of the institution "group chiali"

### 2.1. The Balance Sheet - Assets and Liabilities 2021-2022.

**Table No. 17: Balance Sheet - Assets for the years 2021-2022**

ASSETS	2022			2021
	GROSS AMOUNTS	DEPRECIATION/ PROVISIONS AND IMPAIRMENTS	NET VALUE	NET VALUE
NON-CURRENT ASSETS				
GOODWILL - POSITIVE OR NEGATIVE	56,954.00	-	56,954.00	56,954.00

## Case Study in CHIALI Company

INTANGIBLE ASSETS	55,013.95	52,913.31	2,100.65	2,099.68
TANGIBLE ASSETS	9,555,845.14	6,684,754.26	2,871,090.88	2,696,098.44
LAND	130,278.94	47,871.04	82,407.90	88,921.85
BUILDINGS	8,693,106.70	6,636,883.22	2,056,223.49	1,874,717.09
OTHER TANGIBLE ASSETS	732,459.50	-	732,459.50	732,459.50
CONCESSION ASSETS	528,658.42	-	528,658.42	376,240.26
ASSETS UNDER CONSTRUCTION	139,404.97	-	139,404.97	183,668.01
FINANCIAL ASSETS	135,234.00	-	135,234.00	135,234.00
INVESTMENTS IN ASSOCIATES	4,170.97	-	4,170.97	48,434.01
OTHER EQUITY INVESTMENTS AND RELATED RECEIVABLES				
OTHER INVESTMENT SECURITIES				
LOANS AND OTHER NON-CURRENT FINANCIAL ASSETS				
DEFERRED TAX ASSETS				
TOTAL NON-CURRENT ASSETS	10335876.48394	6737667.56214	3598208.9218	3315060.37746
CURRENT ASSETS				
INVENTORY AND WORK IN PROGRESS	10,567,963.21	133,155.18	10,434,808.03	7,681,019.55
	13,978,347.21	123,151.88	13,855,195.33	12,864,839.45

## Case Study in CHIALI Company

RECEIVABLES AND SIMILAR CLAIMS	9,248,850.87	123,151.88	9,125,698.98	8,144,451.90
CUSTOMERS		-	-	
OTHER DEBTORS		-	-	
TAXES AND SIMILAR CLAIMS				
OTHER RECEIVABLES AND SIMILAR CLAIMS	3,148,317.64	-	3,148,317.64	2,964,399.44
CASH AND CASH EQUIVALENTS	3,148,317.64	-	3,148,317.64	2,964,399.44
CURRENT FINANCIAL ASSETS AND INVESTMENTS				
CASH				
<b>TOTAL CURRENT ASSETS</b>	<b>27694628.06892</b>	<b>256307.06526</b>	<b>27438321.00366</b>	<b>23510258.44382</b>
<b>TOTAL ASSETS OVERALL</b>	<b>38030504.55286</b>	<b>6993974.6274</b>	<b>31036529.93</b>	<b>26825318.82</b>

Source: established by me based on the data from the accounting balance sheet.

**Table No. 18: Balance Sheet - liabilities for the years 2021-2022**

LIABILITIES	2022	2021
<b>EQUITY</b>		
- ISSUED CAPITAL	3,000,000.00	3,000,000.00
- UNCALLED CAPITAL		
- PREMIUMS AND RESERVES - CONSOLIDATED RESERVES	18,384,471.74	16,684,646.76
- REVALUATION DIFFERENCES		
- EQUITY METHOD ADJUSTMENTS	1,986,641.15	1,601,151.60
- INCOME - GROUP SHARE	1,461,151.60	1,699,824.99
- OTHER EQUITY - CARRIED FORWARD		

## Case Study in CHIALI Company

TOTAL I	24832264.5	22,985,623.35
<b>NON-CURRENT LIABILITIES</b>		
- LOANS AND FINANCIAL DEBTS	1,490,045.52	921,266.24
- TAXES (DEFERRED AND ACCRUED)		
- OTHER NON-CURRENT DEBTS	707,648.68	716,610.43
- PROVISIONS AND DEFERRED INCOME		
TOTAL II	2,197,694.19	1,637,876.67
<b>CURRENT LIABILITIES</b>		
- SUPPLIERS AND RELATED ACCOUNTS	1,180,976.30	1,617,143.83
- TAXES	86,349.72	289,183.90
- OTHER DEBTS	334,575.17	295,491.08
- CASH AND CASH EQUIVALENTS LIABILITY	2,404,670.05	-
TOTAL III	4,006,571.23	2,201,818.80
TOTAL LIABILITIES ( I+II+III )	31,036,529.93	26,825,318.82

Source: established by me based on the data from the accounting balance sheet.

Based on the financial balance sheet, we can develop the financial balance sheet in broad masses.

**Table 19: Broad masses balance sheet for the year 2022.**

ASSETS	AMOUNT	%	LIABILITIES	AMOUNT	%
- Fixed assets value	3598208.92	11.59	-Equity	24832264.5	80
- Operating assets value	10,434,808.03	33.62	- Medium and Long-term Debts	2197694.19	7.08
- Receivable assets value	13,855,195.33	44.64	- Short-term Debts	4006571.23	12.90

## Case Study in CHIALI Company

- Available assets value	3,148,317.64	10.14			
TOTAL	31036529.93	100	TOTAL	31036529.93	100

Source: established by me based on the data from the accounting balance sheet.

**Table 20: Broad masses balance sheet for the year 2021.**

ASSETS	AMOUNT	%	LIABILITIES	AMOUNT	%
- Fixed assets value	3315060.38	12.35	-Equity	22985623.35	85.68
- Operating assets value	7,681,019.55	28.63	- Medium and Long-term Debts	1637876.67	6.10
- Receivable assets value	12,864,839.45	47.95	- Short-term Debts	2201818.8	8.2
- Available assets value	2,964,399.44	11.05			
TOTAL	26825318.82	100	TOTAL	26825318.82	100

Source: established by me based on the data from the accounting balance sheet.

### Comments:

#### A- The analysis of uses:

The uses of the financial balance sheet include all the elements that make up the company's assets.

## Case Study in CHIALI Company

### ➤ Fixed assets value:

The fixed assets of the company rose from \$3,315,060.38 in 2021 to \$3,598,208.92 in 2022. This constitutes an 8.55% increase, indicating the firm's commitment to building its long-term production capacity and potentially signaling a forward-looking strategic investment in its growth. It's crucial to observe the nature of these investments - if they're deployed towards modernization, technological upgrades, or process improvements, they can enhance future productivity and operational efficiency. This increase, coupled with the slight decrease in its proportion to the total assets (from 12.35% to 11.59%), might also suggest a balanced asset diversification strategy.

### ➤ Operating assets value

Operating assets, the lifeblood of a company's daily functions, saw a 35.82% upswing from \$7,681,019.55 in 2021 to \$10,434,808.03 in 2022. The significance of this increase depends on the nature of the operating assets. If these are largely inventory, a large increase could indicate overstocking or slow-moving goods. Conversely, if these assets are mostly tied up in productive equipment or machinery, this could signal a capacity expansion. The uptick in operating assets' proportion of total assets from 28.63% to 33.62% potentially indicates increased operational scale or intensity.

### ➤ Receivable assets value

Receivable assets climbed by 7.70% from \$12,864,839.45 in 2021 to \$13,855,195.33 in 2022. This rise might reflect higher sales volume, longer credit terms extended to customers, or slower collection processes. Although it's generally positive to see an increase in receivables due to higher sales, it could spell trouble if collection periods are extending - slow collections can strain cash flow. Interestingly, despite the nominal increase, receivable assets' share of total assets dipped from 47.95% to 44.64%, suggesting a more conservative credit policy or improved efficiency in other asset categories.

## Case Study in CHIALI Company

### ➤ Available assets value

Available assets, usually comprising highly liquid assets like cash and equivalents, posted a modest 6.20% growth from \$2,964,399.44 in 2021 to \$3,148,317.64 in 2022. If the increase is largely in cash, it could indicate robust cash generation from operations or successful fundraising activities. However, their percentage of total assets contracted slightly from 11.05% to 10.14%, possibly due to higher growth rates in other asset categories.

### **B. The resources:**

The resources of the financial balance sheet include all the sources of funding that allow the company to finance its assets and its activity.

### ➤ Equity

The company's equity expanded by 8.03% from \$22,985,623.35 in 2021 to \$24,832,264.5 in 2022. This is a positive sign as it indicates an enhancement in shareholder value and implies strong retained earnings or additional capital infusion. However, the decrease in equity's proportion of total liabilities from 85.68% to 80% could raise some concerns. It might suggest an increasing reliance on external debt, which can amplify financial risk if not managed carefully.

### ➤ Medium and Long-term Debts

The medium and long-term debts registered a considerable growth of 34.22% from \$1,637,876.67 in 2021 to \$2,197,694.19 in 2022. This could be due to new borrowings to finance long-term projects or to refinance existing debt. It's vital for the company to ensure that these debts are being utilized effectively to generate profitable growth and not just service existing debt. The proportion of these debts also edged up from 6.10% to 7.08% of total liabilities, which could mean higher future interest obligations.

## Case Study in CHIALI Company

### ➤ Short-term debts

Short-term debts witnessed a steep 81.98% increase from \$2,201,818.80 in 2021 to \$4,006,571.23 in 2022. This might be due to an increased reliance on short-term borrowings to meet operational needs. While short-term debt can provide flexibility, a significant increase might indicate potential liquidity issues. Also, the rising proportion of short-term debts from 8.2% to 12.9% of total liabilities might heighten the risk of repayment pressures in the short-term.

### ➤ Conclusion

In conclusion, while the company's aggressive asset expansion and leveraging activities seem to point towards a growth-oriented strategy in 2022, it's crucial to keep an eye on the quality of receivables and the servicing of the growing debt portfolio. Future profitability and cash flow sustainability will determine the wisdom of these financial maneuvers.

## 2.2. The contribution of financial analysis in decision-making: case of CHIALI GROUP

Financial analysis plays a pivotal role in decision-making within a corporate context. The nuances of this influence become evident when we consider the case of CHIALI GROUP. This company provides a perfect example of how financial balance indicators influence strategic decisions, especially when it comes to maintaining liquidity and managing cash flows. The business employs various financial ratios and conducts a comprehensive profit and loss analysis to ensure its financial health and sustainability.

### 2.2.1. The role of balance indicators in decision-making

Before delving into the specific implications for CHIALI, it's crucial to understand the theoretical underpinnings of financial balance indicators and how they're derived. These indicators serve as the foundation for astute financial analysis and a deeper understanding of the company's financial positioning.

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### a. Working Capital (WC)

The concept of working capital is foundational in financial analysis, acting as a crucial metric for evaluating an organization's short-term liquidity and operational efficiency. There are multiple versions of working capital, each providing a unique perspective on the organization's financial health.

The classic definition of working capital refers to the difference between long-term resources that contribute to the financing of current assets. Working capital can be calculated directly from the balance sheet in two complementary ways:

- **Working capital = Permanent capital (equity + long-term liabilities) - Fixed assets.** This represents the "upper balance sheet" approach.

- **Working capital = Current assets - Short-term debts.** This illustrates the "lower balance sheet" perspective.

### b. Own Working Capital (OWC)

OWC is a specialized version of working capital that focuses on the company's self-financing capacity. It specifically measures the firm's ability to finance its investments using its own equity. The calculation for OWC is:

- **Own working capital = Equity - Fixed assets.**

### c. Total Working Capital (TWC)

TWC represents the aggregate value of current assets, i.e., assets that are expected to be converted into cash within a year. This category typically includes operating assets, receivables, and cash or

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cash equivalents. It provides insight into the scale of the company's short-term operational activities. The calculation for TWC is straightforward:

**TWC = Operating Value (OV) + Receivable Value (RV) + Available Value (AV) = Current Assets.**

### d. Foreign Working Capital (FWC)

FWC offers a counterpoint to OWC, representing the portion of the company's total resources financed by external or foreign sources, typically embodied in its total debts. It captures the company's reliance on external financing, including both long-term and short-term debt. The calculation for FWC is:

**FWC = Long and Medium-Term Debts (LMTD) + Short-Term Debt (STD).**

These balance indicators together provide a comprehensive view of the company's financial standing, its short-term liquidity, and its financing structure. The management at CHIALI can utilize these indicators to make informed decisions about future investments, financing options, and working capital management strategies. These decisions, in turn, can have profound implications for the company's operational efficiency, financial risk, and overall profitability.

**Table 21: Calculate all the different types of working capital:**

	2021	2022
Permanent capital	24,623,500.02	27,029,958.69
Fixed assets	3,315,060.38	3,598,208.92
<b>Working capital (upper balance sheet)</b>	21,308,439.64	23,431,749.77

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Current assets	23510258.44	27438321
Short-term debts	2201818.80	4,006,571.23
<b>Working capital (lower balance sheet)</b>	21,308,439.64	23,431,749.77
Equity	22,985,623.35	24,832,264.5
Fixed assets	3,315,060.38	3,598,208.92
<b>Own working capital</b>	19,670,562.97	21,234,055.58
Current assets	23510258.44	27438321
<b>Total working capital</b>	23510258.44	27438321
Long and medium term debts	1,637,876.67	2,197,694.19
Short-term debts	2,201,818.80	4,006,571.23
<b>Foreign working capital</b>	3,839,695.47	6,204,265.42

Source: established by me based on the data from the accounting balance sheet.

### Comment

#### ➤ **\*\*Working Capital\*\* :**

This measure of working capital is fundamental as it directly reflects the company's ability to meet its short-term obligations. For 2021, the working capital was calculated to be \$21,308,439.64, and for 2022, it increased to \$23,431,749.77. This shows a positive growth trend, indicating an enhanced liquidity position and potentially implying more efficient management of short-term assets and liabilities. The company's ability to cover its short-term liabilities with short-term assets is a crucial component of its financial health. A possible reason for this could be an increase in

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receivables due to increased sales, or perhaps more effective cash management. Alternatively, the company might have successfully decreased its short-term liabilities.

### ➤ **\*\*Own Working Capital (OWC)\*\*:**

This refers to the company's capacity to finance its fixed assets using equity, indicating a level of financial independence. The OWC for 2021 was \$19,670,562.97, which saw a considerable increase to \$21,234,055.58 in 2022. This upward trajectory suggests that the company is investing more in fixed assets using its own equity. In other words, the company is enhancing its self-financing capacity, which is generally a favorable trend as it reduces reliance on external borrowing and associated costs. The growing OWC also points towards a strengthening in the financial structure of the company. However, this also indicates that the company is reinvesting its profits into fixed assets rather than distributing them as dividends, which might be a strategic decision based on its growth plans.

### ➤ **\*\*Total Working Capital (TWC)\*\*:**

TWC measures the total short-term assets, which are crucial for the day-to-day operations of the company. In 2021, the TWC was calculated to be \$23,510,258.44, which increased to \$27,438,320.90 in 2022. This sizeable increase suggests that the company had a higher pool of short-term assets (operating, receivable, and available assets) in 2022 compared to the previous year. An increase in TWC might be due to the expansion of business operations, leading to a rise in receivables and inventories. Also, this could mean that the company's management of assets and control over credit is getting better. The increased TWC could lead to a higher turnover rate of inventory and receivables, implying potential profitability and liquidity boosts.

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### ➤ **\*\*Foreign Working Capital (FWC)\*\*:**

The FWC shows the company's reliance on external borrowing. In this case, it increased from \$3,839,695.47 in 2021 to \$6,204,265.42 in 2022. This rise implies that the company has increased its short-term and medium-to-long term debts. While borrowing can provide a useful source of capital for companies, especially for financing profitable projects, an increase in debt levels should be handled cautiously. If not well-managed, high debt levels can lead to increased financial risk and potential insolvency issues. The management needs to make sure the borrowed capital is used efficiently to generate sufficient returns to cover the cost of borrowing.

### ➤ **Conclusion**

In conclusion, CHIALI GROUP appears to have undergone considerable growth between 2021 and 2022, as evidenced by the increases in all working capital types. This growth may suggest an expansion of the business and a strengthening of its financial position. However, it's essential to continue monitoring the growing foreign working capital to ensure the company's debt is well-managed and does not expose it to excessive financial risk. While these financial indicators provide valuable insights into the company's performance and financial health, they should be used in conjunction with other metrics and information for a more comprehensive understanding of the company's overall performance.

### **2.2.2. Working Capital Requirement (WCR)**

The Working Capital Requirement is a crucial measure in financial management. It represents the additional funds that a company needs for its everyday operations,

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During an operating cycle, a company needs to finance various costs, such as inventory expenses and other short-term liabilities. If the total short-term debts exceed the current assets (excluding cash or equivalents), a gap emerges, known as the Working Capital Requirement (WCR).

The WCR is calculated as:

$$\text{WCR} = (\text{Current Assets} - \text{Available Value}) - (\text{Short Term Debts} - \text{Financial Debts})$$

This metric essentially shows the net amount of funds needed to ensure that current assets can cover short-term liabilities, after accounting for cash and equivalents. A positive WCR might indicate the need for external financing or the use of long-term assets to meet short-term obligations, increasing financial risk. Conversely, a negative WCR might suggest surplus short-term assets that could be invested for better returns.

In summary, managing the WCR is essential for maintaining a company's financial health and operational efficiency. By monitoring its WCR, a company can make informed decisions about its working capital strategies, optimizing its liquidity, mitigating financial risks, and enhancing overall performance.

**Table 22: The company's WCR from the years 2021 - 2022.**

	2021	2022
Current Assets	23,510,258.44	27,438,321.00
Available Value	2,964,399.44	3,148,317.64
<b>Current Assets - Available Value</b>	20,545,859.00	24,290,003.36
Short Term Debts	2201818.80	4006571.23

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Financial Debts	0	2,404,670.05
<b>Short Term Debts - Financial Debts</b>	2201818.80	1,601,901.19
<b>WCR</b>	18344040.2	22,688,102.17

Source: established by me based on the data from the accounting balance sheet.

- **COMMENT**

The Working Capital Requirement (WCR) for CHIALI spa has grown from \$18,344,040.2 in 2021 to \$22,688,102.17 in 2022, an increase of approximately 24%.

This growth suggests that CHIALI required more operational financing in 2022 than in the previous year. There could be several reasons for this increase. One possibility could be the expansion of operations, leading to higher inventory levels and receivables, thus increasing the funding needed to finance these assets. Another reason could be slower collections or extended credit terms, which would increase receivables and hence the WCR.

On the flip side, a growing WCR may also indicate inefficiencies in the management of inventories or receivables. If inventory turnover is slow or receivables collection is lengthening, the WCR will increase, potentially tying up funds that could be used elsewhere in the business.

While an increasing WCR could be a sign of business growth, it's important to carefully manage this growth to ensure it doesn't negatively impact cash flow. Rising WCR indicates that more of the company's cash is tied up in its operating cycle, which could potentially limit its ability to invest in growth opportunities, meet financial obligations, or weather financial downturns. Therefore, management should regularly review their inventory and credit policies, and continually strive for efficiencies in their operating cycle to optimize the WCR.

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To fully interpret the implications of this trend, the increase in the WCR should be investigated further, focusing on the management of inventory, receivables, and payables. This will help determine whether the increase in WCR is due to operational growth or potential inefficiencies. It's also important to consider this trend in conjunction with other financial metrics to obtain a holistic view of the company's financial health.

### 2.2.3. NET CASH POSITION

The net cash position reflects a company's liquidity during a given operational cycle. It signifies the company's financial flexibility and ability to meet short-term obligations, seize investment opportunities, and manage financial challenges.

Essentially, the net cash position is the sum of readily available liquid assets. It can be computed in two general ways:

**Table 23: The company's net cash position from the years 2021 - 2022.**

	2021	2022
Cash assets	2,964,399.44	3,148,317.64
Cash liabilities	0	2,404,670.05
<b>Net cash position</b>	2,964,399.44	743,647.60
Working capital	21,308,439.64	23,431,749.77

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Working capital requirement	18344040.2	22,688,102.17
<b>Net cash position</b>	2,964,399.44	743,647.60

Source: established by me based on the data from the accounting balance sheet.

### Comment

Examining the net cash position of your company from 2021 to 2022, we observe a decrease from 2,964,399.44 to 743,647.60. Although it remained positive in both years, indicating the company's ability to cover immediate financial obligations, the substantial decrease of approximately 74.93% certainly influences strategic decisions.

Firstly, the company's management may need to reassess its short-term financial strategies. This could involve reviewing the company's receivables collection period, costs, or sales strategies that could have contributed to the decrease in cash and cash equivalents during 2022. Management decisions, particularly regarding collections and payments, directly affect the net cash position.

Secondly, the lower net cash position could limit the company's ability to seize investment opportunities, especially those requiring substantial upfront costs. It may result in the company missing out on potentially profitable investments. Therefore, it's essential for the decision-makers to strategize ways to enhance the cash position to not just maintain financial health but also exploit growth opportunities.

Lastly, maintaining a positive net cash position is critical in the face of unforeseen financial challenges. A strong net cash position offers a safety net, which allows a company to absorb sudden financial shocks. Given the decrease in the net cash position, decision-makers must consider building a more robust cash buffer for financial resilience.

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However, the sustained positive net cash position indicates the company's ability to maintain short-term financial stability, providing room for strategic decisions aimed at sustainable growth. A continued positive cash position suggests the business can meet its current liabilities with its liquid assets, providing the flexibility to drive operational improvements or strategic initiatives.

Finally, the company must consider investing any surplus funds to generate returns and improve the overall financial health further. Investment decisions need careful evaluation of potential risks and returns, and a sound investment can help boost the company's cash position and overall financial stability in the long run.

In summary, the net cash position is a vital financial health indicator that significantly influences decision-making in a company. It affects the company's strategic and operational choices and hence must be managed effectively.

### **2.2.4. The Role of Financial Ratios in Decision Making**

Financial ratios are crucial in understanding the financial health of a company. They provide valuable insights into the strategies the company adopts and serve as a practical tool for evaluating the financial situation and performance outcomes.

#### **2.2.4.1. Liquidity Ratios**

Liquidity ratios are used to assess a company's ability to cover its short-term obligations. These ratios give an insight into how efficiently the company can pay off its current liabilities using its current assets. These metrics include the Current Ratio, Quick Ratio (also known as Acid-Test Ratio), and Cash Ratio.

The calculation of these ratios for the company under study will offer a comprehensive view of the company's short-term financial stability. They are fundamental in financial decision-making, particularly in areas like cash management, credit control, and inventory management, enabling

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the company to maintain sufficient liquidity and ensure smooth business operations. These liquidity ratios will be presented and analyzed in the subsequent sections.

**Table 24: Liquidity ratio calculation**

	Calculation Formula	2021	2022
Current Ratio	$\frac{\text{Current Assets}}{\text{Short-Term Debt}}$	10.67	6.85
Quick Ratio	$\frac{(\text{Realizable Value} + \text{Available Value})}{\text{Short-Term Debt}}$	7.19	4.24
Cash Ratio.	$\frac{\text{Available Value}}{\text{Short-Term Debt}}$	1.35	0.79

Source: established by me based on the data from the accounting balance sheet.

The values of the Current Ratio, Quick Ratio, and Cash Ratio for the company over the two years reveal essential insights into the company's liquidity position and financial health.

### 1. Current Ratio

With a high Current Ratio in both 2021 and 2022, decision-makers can have confidence in the company's ability to meet short-term obligations, which is crucial for maintaining trust with creditors and investors. However, a decreasing trend may warrant a closer examination of the company's working capital management strategies. While the current ratios remain high, the trend

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might influence decisions around managing inventory levels, accounts receivable collection policies, and short-term financing options.

### **2. Quick Ratio**

The Quick Ratio, which gives a stringent measure of liquidity, can influence decisions related to inventory and receivables management. A high Quick Ratio as demonstrated in both years suggests that the company has enough liquidity even without considering inventory, which is usually less liquid. However, the decrease from 2021 to 2022 could prompt decision-makers to review policies related to inventory and receivable management to ensure they aren't tying up too much capital in these areas.

### **3. Cash Ratio**

The Cash Ratio, being the most conservative measure of liquidity, has a significant impact on decisions related to cash management. The drop in the Cash Ratio in 2022 might raise concerns among decision-makers regarding the company's cash management policies. Even though the cash ratio in 2022 is within an acceptable range, the decline could influence decisions around cash reserve policies, short-term investment strategies, and plans for meeting future short-term obligations.

In general, while the company's liquidity position seems strong according to all three ratios, the downward trend could impact decisions related to managing working capital, cash, and short-term liabilities. These ratios provide valuable insight into the company's short-term financial health, which can help guide strategic financial decisions to ensure the company maintains its liquidity position while effectively using its assets to drive growth.

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## 2.2.4.2. Activity Ratios

These ratios measure the effectiveness of the company in managing and utilizing its assets (stocks and receivables) to generate sales and make a profit. These ratios are specified in the following table:

**Table 25: Activity ratio calculation**

Name of Ratios	Calculation Formula	2021	2022
Supplier debt repayment period	$(\text{Accounts payable} * 360) / \text{purchases (VAT included)}$	43.77	26.06
Stock turnover	$(\text{average stocks} * 360) / \text{stock consumption.}$	245	199.8508674
Customer receivables collection period	$(\text{customer receivables} * 360) / \text{sales (VAT included)}$	167.4640998	154.8188263

Source: established by me based on the data from the accounting balance sheet.

### 1. Supplier debt repayment period:

This period has decreased from 43 days in 2021 to 26 days in 2022. This indicates that the company has significantly improved its ability to pay off its suppliers. The shorter repayment period in 2022 suggests that the company either has increased cash flow or has prioritized reducing debts more

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quickly. However, this could also potentially strain the company's liquidity if not managed carefully.

### 2. Stock turnover:

This ratio has improved from 245 days in 2021 to 199 days in 2022. This indicates that the company has become more efficient in managing its inventory, reducing the time that stocks stay on hand before being sold or used in the production process. This improved efficiency could be due to better demand forecasting, more efficient production processes, or improved sales strategies.

### 3. Customer receivables collection period:

This period has improved from 167 days in 2021 to 154 days in 2022. This indicates that the company is collecting payment from its customers faster. A shorter collection period can improve the company's cash flow and reduce the risk of bad debt.

**Overall**, these results indicate that the company has improved its operational efficiency and financial management between 2021 and 2022. The improvements in supplier debt repayment, stock turnover, and customer receivables collection periods all suggest better cash flow management and operational efficiency. However, the company should continue to monitor these ratios to ensure that the improvements can be sustained and that they do not adversely affect other areas of the business.

#### 2.2.4.3. Solvency and Financing Ratios

Solvency and financing ratios like financial independence, financing of fixed assets, debt repayment capacity, and financial autonomy are key indicators that determine a company's ability to fulfil its long-term commitments. They provide a comprehensive view of the company's capital

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structure and its reliance on external financing. In the upcoming analysis, we'll explore these specific ratios for CHIALI, offering insights into its long-term financial sustainability.

**Table 26: Solvency and Financing ratio calculation**

	Calculation Formula	2021	2022
Financial independence	Equity / Total DEBT	5.99	4.00
financing of fixed assets	Permanent Capital / Fixed Assets	7.43	7.51
financial autonomy	Equity / Permanent Capital	0.93	0.92
Solvency	Total Assets / Total DEBT	6.99	4.42

Source: established by me based on the data from the accounting balance sheet.

### 1. Financial Independence Ratio

Measuring the company's degree of financial independence by examining how much of its capital is financed by equity as opposed to debt, has decreased from 5.99 in 2021 to 4.00 in 2022. This means that the company is becoming less reliant on its own equity for financing, suggesting an increase in borrowing or debt. This could potentially increase the company's financial risk, given that debt obligations require interest payments and eventual repayment of the principal.

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## 2. Financing of Fixed Assets Ratio

Indicating the degree to which the company's fixed assets are funded by permanent capital, shows a slight increase from 7.43 in 2021 to 7.51 in 2022. This suggests that the company has either increased its permanent capital or reduced its fixed assets. This slight increase indicates a solid capital structure that is more resilient to financial risks.

## 3. Financial Autonomy Ratio

Revealing how much of the company's permanent capital is financed by equity, has slightly decreased from 0.93 in 2021 to 0.92 in 2022. This slight decrease may signal a small increase in debt, slightly reducing the company's financial autonomy. However, given the small change, this remains relatively stable, indicating the company maintains a good level of control over its finances.

## 4. Solvency Ratio

Illustrating the company's ability to meet its long-term obligations by comparing its total assets to its total debt, has significantly decreased from 6.99 in 2021 to 4.42 in 2022. This suggests that the company's total debt has grown relative to its total assets. This decline could indicate that the company has taken on more debt or that its assets have decreased, both of which could increase financial risk.

In summary, these solvency and financing ratios suggest that the company has seen an increase in its debt relative to its equity and assets from 2021 to 2022. This could have implications for the company's financial risk and stability. However, the Financing of Fixed Assets Ratio remains

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stable, indicating a solid capital structure. These ratios should be closely monitored, and appropriate steps should be taken to ensure the company's financial stability in the future.

### 2.3. The role of intermediate management balances in decision-making:

Calculations of results in decision-making and includes the sum of intermediate results given by the table and how they are distributed until reaching the net annual result. During this requirement, we will analyze the various results of the CHIALI Company through the table of income statements for the study periods.

Here's the translated version of the income statement terms:

**Table No. 27: Calculation of intermediate management balances.**

	2021	2022
SALES OF GOODS	1,128,631.25	1,341,445.46
(+) SOLD PRODUCTION	16,379,614.92	19,878,529.61
(=) TURNOVER (Excl. VAT)	17,508,246.17	21,219,975.07
SOLD PRODUCTION	16,379,614.92	19,878,529.61
( + or - )STOCKED PRODUCTION	60,949.68	193,230.12
(+) CAPITALIZED PRODUCTION	75,511.96	24,555.16

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(=)	PRODUCTION OF THE YEAR	17,644,707.81	21,437,760.36
	SALES OF GOODS	1,128,631.25	1,341,445.46
(-)	PURCHASE OF SOLD GOODS	790,451.85	919,359.38
(=)	TRADING MARGIN	338,179.40	422,086.08
	PRODUCTION	17,644,707.81	21,437,760.36
(-)	PURCHASED GOODS SOLD	790,451.85	919,359.38
(-)	RAW MATERIALS CONSUMED	12,318,455.12	15,206,335.12
(-)	EXTERNAL SERVICES AND OTHER CONSUMPTION	887,199.42	900,121.42
(=)	ADDED VALUE (AV)	3,648,601.42	4,411,944.44
	ADDED VALUE	3,648,601.42	4,411,944.44
(+)	OPERATING GRANTS	-	-
(-)	TAXES AND SIMILAR PAYMENTS	140,656.22	177,330.32
(-)	PERSONNEL EXPENSES	951,768.57	1,082,002.22
(=)	GROSS OPERATING SURPLUS	2,556,176.64	3,152,611.89
	GROSS OPERATING SURPLUS	2,556,176.64	3,152,611.89

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( - )	DEPRECIATION AND IMPAIRMENT LOSSES	646,463.40	726,297.67
( + )	WRITE-BACK OF IMPAIRMENT LOSSES AND PROVISIONS	139,621.81	227,147.47
( + or - )	OTHER OPERATING INCOME AND EXPENSES	217,249.53	17,148.32
(=)	OPERATING RESULT	2,266,584.57	2,670,610.01
	OPERATING RESULT	2,266,584.57	2,670,610.01
( + )	FINANCIAL INCOME	19,313.21	29,738.89
( - )	FINANCIAL EXPENSES	287,565.02	279,431.98
(=)	ORDINARY RESULT	1,998,332.77	2,420,916.93
	ORDINARY RESULT	1,998,332.77	2,420,916.93
( + or - )	EXTRAORDINARY RESULT	2,266,584.57	2,670,610.01
( - )	CORPORATE INCOME TAX	397,181.17	434,275.78
(=)	NET INCOME FOR THE YEAR	1,601,151.60	1,986,641.15
	NET CONTRIBUTIONS TO DEPRECIATION AND PROVISIONS	646,463.40	726,297.67
( - )	CAPITAL GAINS ON ASSET DISPOSAL		
( + )	CAPITAL LOSS ON ASSET DISPOSAL		

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(=)	SELF-FINANCING CAPACITY	2,644,796.17	3,147,214.60
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Source: established by me based on the data from the accounting balance sheet.

**Table No. 28: the different variations of the elements in the of intermediate management balances.**

	VARIATION	VARIATION %
SALES OF GOODS	212,814.21	19%
(+) SOLD PRODUCTION	3,498,914.70	21%
(=) TURNOVER (Excl. VAT)	3,711,728.91	21%
SOLD PRODUCTION	3,498,914.70	21%
( + or - )STOCKED PRODUCTION	132,280.44	217%
( + ) CAPITALIZED PRODUCTION	-50,956.80	-67%
(=) PRODUCTION OF THE YEAR	3,793,052.55	21%
SALES OF GOODS	212,814.21	19%
(-) PURCHASE OF SOLD GOODS	128,907.53	16%
(=) TRADING MARGIN	83,906.69	25%

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PRODUCTION	3,793,052.55	21%
(-) PURCHASED GOODS SOLD	128,907.53	16%
(-) RAW MATERIALS CONSUMED	2,887,880.00	23%
(-) EXTERNAL SERVICES AND OTHER CONSUMPTION	12,922.01	1%
(=) ADDED VALUE (AV)	763,343.01	21%
ADDED VALUE	763,343.01	21%
(+) OPERATING GRANTS	-	
(-) TAXES AND SIMILAR PAYMENTS	36,674.11	26%
(-) PERSONNEL EXPENSES	130,233.65	14%
(=) GROSS OPERATING SURPLUS	596,435.26	23%
GROSS OPERATING SURPLUS	596,435.26	23%
(-) DEPRECIATION AND IMPAIRMENT LOSSES	79,834.27	12%
(+) WRITE-BACK OF IMPAIRMENT LOSSES AND PROVISIONS	87,525.66	63%
(+ or -) OTHER OPERATING INCOME AND EXPENSES	-200,101.20	-92%
(=) OPERATING RESULT	404,025.44	18%

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OPERATING RESULT	404,025.44	18%
( + ) FINANCIAL INCOME	10,425.68	54%
( - ) FINANCIAL EXPENSES	-8,133.04	-3%
(=) ORDINARY RESULT	422,584.16	21%
ORDINARY RESULT	422,584.16	21%
( + or - )EXTRAORDINARY RESULT	404,025.44	
( - ) CORPORATE INCOME TAX	37,094.61	9%
(=) NET INCOME FOR THE YEAR	385,489.55	24%
NET CONTRIBUTIONS TO DEPRECIATION AND PROVISIONS	79,834.27	12%
( - ) CAPITAL GAINS ON ASSET DISPOSAL	-	-
( + ) CAPITAL LOSS ON ASSET DISPOSAL	-	
(=) SELF-FINANCING CAPACITY	502,418.43	19%

Source: established by me based on the data from the accounting balance sheet.

### 1. Commercial Margin:

This increased by 25%, moving from 338,179.40 in 2021 to 422,086.08 in 2022. The commercial margin reflects how much profit is generated from sales, after deducting the cost of goods sold.

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This positive trend could suggest that the company's pricing strategies are effective, or they have managed to control or reduce their production costs. As a decision-making point, the company might consider maintaining or amplifying these strategies.

### **2. Value Added (VA):**

Value Added increased by 21%, rising from 3,648,601.42 in 2021 to 4,411,944.44 in 2022. This suggests the company's operations are becoming more efficient or productive. To further enhance this positive trajectory, the company might consider investing in activities that have led to this increase or seeking out additional efficiencies.

### **3. Gross Operating Surplus :**

The Gross Operating Surplus increased by 23%, from 2,556,176.64 in 2021 to 3,152,611.89 in 2022. This suggests the company is effectively managing its operations and expenses. Given this positive trend, it might be beneficial to examine the key drivers behind it and consider how to sustain or enhance this growth.

### **4. Operating Result:**

The Operating Result witnessed an increase of 18%, moving from 2,266,584.57 in 2021 to 2,670,610.01 in 2022. This improvement indicates the company's core business operations are becoming more profitable. Thus, the company might consider maintaining its current operational strategy or potentially expanding its operational capacity.

# Case Study in CHIALI Company

## 5. Ordinary Result:

Ordinary Result increased by 21%, from 1,998,332.77 in 2022 to 2,420,916.93 in 2021. This figure includes both operating and financial results. The increase signifies that the company has managed both its operations and its finances effectively. Thus, the current financial and operational strategies should be maintained or optimized further.

## 6. Exercise Result (Net Income):

The Exercise Result increased by 24%, from 1,601,151.60 in 2021 to 1,986,641.15 in 2022. This growth directly impacts the shareholders' returns, indicating that the current business model and strategies are yielding positive results. Therefore, the company might consider continuing with the current strategic direction.

## 7. Self-Financing Capacity:

The Self-Financing Capacity increased by 19%, rising from 2,644,796.17 in 2021 to 3,147,214.60 in 2022. This improvement indicates that the company has become more capable of funding its growth from its own operations, reducing the need for external financing. This could open up new opportunities for investments or expansions that previously may not have been feasible.

**\*\*Overall\*\***, these figures suggest a positive financial growth for the company. When making strategic decisions, the company could consider the positive trends in commercial margin, value added, and operating surplus to guide investment in effective strategies or operations. The increases in the operating, ordinary, and exercise results suggest current business operations and financial management strategies are working effectively and could justify further investments or expansion. Finally, the improved self-financing capacity offers opportunities for investment, expansion, or

## Case Study in CHIALI Company

possibly even returning a portion of the surplus to shareholders in the form of dividends. Nonetheless, it's crucial to understand the drivers behind these positive trends to ensure sustainable growth. It is also essential to consider these figures in context with the company's broader strategic goals, market conditions, and other non-financial performance indicators.

### 2.3.1 Profitability ratios

Profitability ratios are financial metrics used by businesses to evaluate their ability to generate profits relative to their revenue, operating costs, equity, and other balance sheet assets. These ratios essentially assess the financial viability of the business and the efficiency of its operations. By computing profitability ratios, businesses can understand their financial performance in-depth, track changes over time, and compare their results with competitors or industry standards.

**Table 29: Profitability ratios calculation**

Name of Ratios	Calculation Formula	2021	2022
Economic Profitability	Net Income / Total Assets	0.06	0.06
Profitability on Equity	Net Income / Equity	0.07	0.08
Commercial Profitability	Net Income / Gross Sales (excluding taxes)	0.09	0.09

Source: established by me based on the data from the accounting balance sheet.

## Case Study in CHIALI Company

The profitability ratios of Chiali company show certain stability and mild improvement over the period from 2021 to 2022.

### 1. Economic Profitability (ROA):

This ratio has remained stable at 0.06 from 2021 to 2022. This suggests that the efficiency of the company in using its assets to generate profit has been consistent over this period. While stability is good, the company might look into strategies for improving this ratio to indicate better use of its assets.

### 2. Profitability on Equity (ROE):

This ratio has shown a slight increase from 0.07 in 2021 to 0.08 in 2022. This means the return on the shareholders' investments has improved, which is a positive sign. It indicates the company is becoming more efficient at generating profits from the equity invested in it.

### 3. Commercial Profitability (Net Profit Margin):

Like Economic Profitability, Commercial Profitability has remained stable at 0.09 from 2021 to 2022. This indicates that the company has been able to maintain its control over costs, and its pricing strategy has been effective. However, as with Economic Profitability, the company might seek strategies to improve this ratio, as higher Commercial Profitability would mean a greater proportion of each unit of sales revenue is being turned into profit.

Overall, these ratios suggest that Chiali company has been profitable with consistent performance over this period. The mild improvement in Profitability on Equity is encouraging, but there may be opportunities for the company to increase its profitability further, especially in terms of making more efficient use of its assets and improving its net profit margin.

**General**

**Conclusion**

=

## General Conclusion

Financial analysis is necessary to monitor the company's activity. It allows for making the necessary decisions to achieve the desired objectives. It draws attention to sensitive points that require study and decisions to improve the company's financial situation, thus enabling necessary efficiency for it to survive and evolve in a competitive economy, something that can only be achieved by relying on modern management tools represented in financial analysis.

Throughout this research, we focused on practical application via a case study conducted on the "CHIALI" company and the fact that accounting information is a decision-making and control tool within any company, regardless of its legal nature or the sector it belongs to. It is advisable not to rely solely on the financial and accounting aspect as an indicator capable of making decisions within the company, because the analysis is a result of a combination of activities and efforts made according to a certain multidimensional policy (social, economic, legal...) However, the financial dimension is paramount, especially in such studies.

The financial analysis process is a management tool par excellence that reveals the strengths and weaknesses of the company, with the aim of making the necessary decisions, which can help the company to recover and avoid future pitfalls.

Our work has allowed us to see that most Algerian companies complain about a lack or deterioration in making appropriate decisions, it has therefore become necessary to give a prominent place to financial analysts as a decision-making tool, using the accounting documents available within the company.

Based on our investigation, we can ascertain that:

1. Financial analysis remains a fundamental factor for the survival, continuity, and development of a company.
2. Financial balance indicators and financial ratios serve as vital financial analysis tools in the organization for making sound decisions related to the company's financial aspect.

## General Conclusion

3. Through financial analysis, we can identify the strengths and weaknesses of a company.

From the study conducted on Groupe Chiali through its theoretical and practical financial data from 2021 and 2022, we arrived at several outcomes. Among these, we highlight the following:

The condition of financial equilibrium was improved. The working capital was positive, showing an improvement in its financial structure in 2022. This implies that the company has raised its equity, and permanent resources are covering long-term debts more efficiently.

The working capital requirement increased from 2021 to 2022, suggesting that the needs of the cycle surpass its resources.

The net cash position decreased from 2021 to 2022, indicating that the company may need to focus more on maintaining a healthy cash flow.

The company's liquidity ratios have decreased from 2021 to 2022, suggesting that the company's liquidity management might need improvement to meet its short-term obligations more effectively.

The financial independence ratio decreased from 2021 to 2022, which implies a rise in debt levels. This shows that the company relied more on debt for its operations in 2022.

Economic profitability remained stable, which means the company was able to generate the same rate of return on its assets. The profitability on equity has slightly increased, indicating that the company has been more effective at generating returns on the money it has invested.

Based on the results obtained from our study of this subject, we propose the following recommendations for Groupe Chiali:

1. Maintain a healthy level of working capital and aim to decrease the working capital requirement (BFR) to ensure the needs of the cycle do not continually surpass its resources.

## **General Conclusion**

2. Focus on maintaining and improving its liquidity position to meet short-term obligations more effectively.
3. Manage and reduce debt levels to improve financial independence and rely less on external financing.
4. Improve asset turnover and efficiency in using assets to generate revenues.
5. Continue focusing on strategies that increase the company's profitability and generate better returns on investment.

Moreover, we recommend Groupe Chiali to make comparisons of its financial statements with other active companies in the same sector. This comparison provides an assessment of the company's situation and can help in formulating strategies to improve this situation in administrative and financial terms.

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 DESIGNATION DE L'ENTREPRISE: CHIALI TUBES SPA  
 ACTIVITE : TRANSFORMATION MATIERE PLASTIQUE  
 ADRESSE : ZONE INDUSTRIELLE VOIE A SIDI BEL ABBES

**EXERCICE CLOS le 31-12-2022  
 BILAN (ACTIF)**

ACTIF	N			N-1
	MONTANTS BRUTS	AMORTISSEMENTS/PROVIS ET PERTES DE VALEURS	NET	NET
<b>ACTIFS NON COURANTS</b>				
<b>ECART D'ACQUISITION-GOODWILL POSITIF OU NEGATIF</b>	56,954.00	-	56,954.00	56,954.00
<b>IMMOBILISATIONS INCORPORELLES</b>	55,013.95	52,313.31	2,100.65	2,099.68
<b>IMMOBILISATIONS CORPORELLES</b>	9,555,845.14	6,684,754.26	2,871,090.88	2,696,098.44
TERRAINS	130,278.94	-	-	88,921.85
BATIMENTS	8,693,106.70	47,871.04	82,407.90	1,874,717.09
AUTRES IMMOBILISATIONS CORPORELLES	732,459.50	6,636,883.22	2,056,223.49	732,459.50
IMMOBILISATION EN CONCESSION	-	-	-	-
<b>IMMOBILISATION EN COURS</b>	528,658.42	-	528,658.42	376,240.26
<b>IMMOBILISATION FINANCIERES</b>	139,404.97	-	139,404.97	183,668.01
TITRES MIS EN EQUIVALENCE	-	-	-	-
AUTRES PARTICIPATIONS ET CREANCES RATTACHEES	135,234.00	-	135,234.00	135,234.00
AUTRES TITRES IMMOBILISES	-	-	-	-
PRET ET AUTRES ACTIFS FINANCIERS NON COURANTS	4,170.97	-	4,170.97	48,434.01
IMPOTS DIFFERES ACTIF	-	-	-	-
<b>TOTAL ACTIF NON COURANT</b>	<b>10,335,876.48</b>	<b>6,737,667.56</b>	<b>3,598,208.92</b>	<b>3,315,060.38</b>
<b>ACTIFS COURANTS</b>				
<b>STOCKS ET EN COURS</b>	10,567,963.21	133,155.18	10,434,808.03	7,681,019.55
<b>CREANCES ET EMPLOIS ASSIMILES</b>	13,978,347.21	123,151.88	13,855,195.33	12,864,839.45
CLIENTS	3,248,850.87	123,151.88	3,125,698.98	8,144,451.90
AUTRES DEBITEURS	4,729,496.35	-	4,729,496.35	4,720,387.55
IMPOTS ET ASSIMILES	-	-	-	-
AUTRES CREANCES ET EMPLOIS ASSIMILES	-	-	-	-
<b>DISPONIBILITES ET ASSIMILES</b>	3,148,317.64	-	3,148,317.64	2,964,399.44
PLACEMENT ET AUTRES ACTIFS FINANCIERS COURANTS	-	-	-	-
TRESORERIE	3,148,317.64	-	3,148,317.64	2,964,399.44
<b>TOTAL ACTIF COURANT</b>	<b>27,694,628.07</b>	<b>256,307.07</b>	<b>27,438,321.00</b>	<b>23,510,258.44</b>
<b>TOTAL GENERAL ACTIF</b>	<b>38,030,504.55</b>	<b>6,993,974.63</b>	<b>31,036,529.93</b>	<b>26,825,318.82</b>

IMPRIME DESTINE A L'ADMINISTRATION  
 DESIGNATION DE L'ENTREPRISE: CHIALI TUBES SPA  
 ACTIVITE : TRANSFORMATION MATIERE PLASTIQUE  
 ADRESSE : ZONE INDUSTRIELLE VOIE A SIDI BEL ABBES

**EXERCICE CLOS le 31-12-2022  
 BILAN (PASSIF)**

PASSIF	N	N-1
<b>CAPITAUX PROPRES:</b>		
CAPITAL EMIS	3,000,000.00	3,000,000.00
CAPITAL NON APPELE	-	-
PRIMES ET RESERVE - RESERVES CONSOLIDEES (1)	18,384,471.74	16,684,646.76
ECARTS DE REEVALUATION	-	-
ECART D'EQUIVALENCE (1)	-	-
<b>RESULTAT NET RESULTAT NET PART DU GROUPE (1)</b>	<b>1,986,641.15</b>	<b>1,601,151.60</b>
AUTRES CAPITAUX PROPRES REPORT A NOUVEAU	1,461,151.60	1,693,824.99
<b>PART DE LA SOCIETE CONSOLIDANTE (1) PART DES MINORITAIRES (1)</b>		
<b>TOTAL I</b>	<b>24,832,264.50</b>	<b>22,985,623.35</b>
<b>PASSIF NON COURANT:</b>		
EMPRUNT ET DETTES FINANCIERES	1,490,045.52	821,266.24
IMPOTS (DIFFERES ET PROVISIONNES)	-	-
AUTRES DETTES NON COURANTES	707,648.68	716,610.43
PROVISIONS ET PRODUITS CONSTATES D'AVANCE	-	-
<b>TOTAL II</b>	<b>2,197,694.19</b>	<b>1,637,876.67</b>
<b>PASSIFS COURANT:</b>		
FOURNISSEURS ET COMPTE RATTACHES	1,180,976.30	1,617,143.83
IMPOTS	86,343.72	283,183.90
AUTRE DETTES	334,575.17	295,431.08
TRESORERIE PASSIF	2,404,670.05	-
<b>TOTAL III</b>	<b>4,006,571.23</b>	<b>2,201,818.80</b>
<b>TOTAL PASSIF ( I+II+III )</b>	<b>31,036,529.93</b>	<b>26,825,318.82</b>

**SPA CHIALI TUBES**

Zone Industrielle Sidi Bel Abbas

**TCR EN MASSE**

**2021-2022**

	2021	2022
	N-1	N
CHIFFRE D'AFFAIRES	17,508,246.17	21,219,975.07
PRODUCTION STOCKEE	-	193,230.12
PRODUCTION VENDUE immobilise	75,511.96	24,555.16
<b>PRODUCTION DE L'EXERCICES</b>	<b>17,644,707.81</b>	<b>21,437,760.36</b>
ACHAT DE MARCHANDISES VENDUES	13,299,811.78	16,316,411.36
SERVICES EXTERIEURS ET AUTRES CONSOMMATIONS	696,294.60	709,404.56
<b>VALEURS AJOUTEE</b>	<b>3,648,601.42</b>	<b>4,411,944.44</b>
(+) SUBVENTIONS D'EXPLOITATION		
(-) IMPOTS TAXES ET VERSEMENTS ASSIMILES	140,656.22	177,330.32
(-) CHARGES DE PERSONNEL	951,768.57	1,082,002.22
<b>(=) EXEDENT BRUT D'EXPLOITATION (EBE)</b>	<b>2,556,176.64</b>	<b>3,152,611.89</b>
(-) DOTATION AUX AMORTISSEMENT PERTE DE VALEURS ET F	646,463.40	726,297.67
(+) REPRIS PERTE DE VALEURS ET PROVISIONS	139,621.81	227,147.47
(+ ou -) AUTRES PRODUITS ET CHARGES OPERATIONNELS	217,249.53	17,148.32
<b>(=) RESULTAT OPERATIONNEL (R.EXTRAORDINAIRE)</b>	<b>2,266,584.57</b>	<b>2,670,610.01</b>
(+) PRODUITS FINANCIERS	19,313.21	29,738.89
(-) CHARGES FINANCIERES	287,565.02	279,431.98
<b>(=) RESULTAT ORDINAIRE</b>	<b>1,998,332.77</b>	<b>2,420,916.93</b>
(+ ou -) RESULTAT EXTRAORDINAIRE	2,266,584.57	2,670,610.01
(-) IMPOT SUR LES SOCIETES	397,181.17	434,275.78
<b>RESULTAT DE L'EXERCICE</b>	<b>1,601,151.60</b>	<b>1,986,641.15</b>
<b>CHIFFRE D'AFFAIRES TTC</b>	<b>20,834,812.94</b>	<b>25,251,770.34</b>
ACHAT DE MARCHANDISES VENDUES	13,299,811.78	16,316,411.36

