Workload Disruption and Organizational Performance: An Empirical Analysis of Financial and Operational Decline within the Algerian Hydraulic Pipelines (ALCAHYD) Precast (2018-2021).

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Abstract:

This study aims to examine the impact of the loss of workload on organizational performance through a confirmatory research approach, utilizing a single case study within the Algerian hydraulic pipelines (ALCAHYD) Precast. The investigation is supported by a semi- structured interview with a responsible officer from the Finances & Accounting Departement.

The findings indicate that a direct and profound causal link exists between the loss of ALCAHYD Precast SPA's workload plan in 2018 and its subsequent, severe financial deficits and organizational performance degradation in 2020 and 2021. The scale of revenue collapse, the dramatic shift to negative operational profitability, the accelerating net losses, and the drastic reduction in human capital all point to a catastrophic rather than moderate outcome.

Keywords: Loss of workload, Organizational performance, Financial deficits.

Jel Classification Codes: M41, M51, P27

الملخص:

تهدف هذه الدراسة إلى فحص أثر فقدان حجم العمل (خطة التحميل) في الأداء التنظيمي، من خلال اعتماد منهج بحث تأكيدي يستند إلى دراسة حالة مفردة لشركة الجزائرية للأنابيب الهيدروليكية .(ALCAHYD Precast) وقد دُعِّم هذا البحث بإجراء مقابلة شبه مهيكلة مع مسؤول في قسم المالية والمحاسبة.

تشير النتائج إلى وجود علاقة سببية مباشرة وعميقة بين فقدان شركة ALCAHYD Precast SPA لخطة حجم أعمالها في سنة 2018، وبين العجز المالي الحاد اللاحق وتدهور الأداء التنظيمي خلال سنتي 2020 و2021. كما أن حجم الانهيار في الإيرادات، والتحول الحاد نحو ربحية تشغيلية سالبة، وتسارع الخسائر الصافية، والانخفاض الجذري في رأس المال البشري، كلها مؤشرات تدل على أن الأثر كان كارثياً لا مجرد أثر معتدل.

الكلمات المفتاحية: فقدان حجم العمل، الأداء التنظيمي، العجز المالي.

رموز تصنيف JEL: M41 ، M51، P27.

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1. INTRODUCTION

In an economic landscape characterized by fierce competition and constant change, the survival and growth of businesses depend on rigorous financial management guided by a strategic vision. At the heart of this management are two complementary disciplines: financial policy and financial analysis. The former focuses on the future and involves establishing strategic contours to optimize capital structure, resource allocation, and profit distribution. The latter, centered on diagnostics, aims to evaluate the company's financial health based on its financial statements and to identify its strengths and weaknesses.

Given these considerations, the following question naturally arises:

« To what extent does loss of workload affect organizational performance within the Algerian hydraulic pipelines (ALCAHYD Precast)*? ».*

In order to address this research question, we hypothesize that loss of workload has a moderate effect on performance improvement. This analysis adopts a confirmatory approach, based on a single case study supported by semi-structured interviews with a manager from the Finances and Accounting Department.

To structure this work, we will first present a review of two concepts by clarifying their theoretical foundations, specific objectives, and implementation tools. We seek to demonstrate that financial policy and analysis are not isolated domains but are intrinsically linked. The evaluation of past performance and the understanding of the current situation illuminate and validate future strategies, making this combination an essential asset for corporate governance. We will first discuss the theoretical framework of financial policy, then the methods of financial analysis, before concluding on their synergy at the strategic level.

Finally, to deepen our understanding of these relationships, we will introduce a case study focused on the Algérienne des Canalisations Hydrauliques (ALCAHYD Precast), specifically examining the impact of the loss of workload plan on performance improvement.

LITERATURE REVIEW

1. The Theoretical Framework of Financial Policy and Financial Analysis

Financial policy encompasses the entire set of strategic choices that guide a company's financial decisions. A shift from a descriptive approach has marked its evolution, focused on the external environment to an integrated, proactive internal management function aimed at creating value for capital providers.

1.1. Definition and Strategic Ambitions

Financial policy can be defined as a coherent set of general guidelines and structuring decisions that govern the management of an organization's financial resources and uses. As Pierrat (1996) emphasizes, it translates into the preparation and making of informed decisions aimed at achieving the primary objective of maximizing shareholder value. This pragmatic approach is supported by various tools derived from corporate finance to direct financial flows in line with established strategic objectives.

The primary ambitions of financial policy, as described by Cabane (2004), are twofold. On one hand, it aims to ensure that the company has the necessary capital for its development at the right time and at the lowest cost, in alignment with its overall strategy. On the other hand, it must actively contribute to increasing the company's value, synergizing with other growth levers.

1.2. Constitutive Elements and Implementation Tools

Implementing a financial policy is based on several interdependent elements, including a precise assessment of funding needs, the search for optimal sources of capital, the arbitration between different investment opportunities, the definition of a dividend distribution policy, the management of financial risks, and long-term financial planning.

To achieve these objectives, financial managers have access to specific tools. Financial planning, for instance, facilitates the translation of strategic orientations into detailed financial projections, ensuring the viability of the company's projects. Identifying and maintaining key financial balances, especially between uses and sources, is a central concern requiring rigorous monitoring of the balance sheet and cash flows. Furthermore, the continuous processes of increasing revenues and reducing expenses, along with evaluating the pros and cons of alternative solutions, significantly influence the company's performance.

1.3. Methods of Financial Analysis

Unlike financial policy, which is future-oriented, financial analysis relies on a critical examination of past and present financial data to establish a reliable diagnosis of the situation. According to Lahille (2001), it involves an approach aimed at assessing, as objectively as possible, financial and economic performance, solvency, and assets.

1.3.1. Objectives and Stakeholders

The primary objective of financial analysis is to provide a clear and precise diagnosis that highlights an organization's strengths and weaknesses, thereby supporting decision-making. Its objectives are numerous: evaluating profitability, financial structure, value creation, competitive position, and associated risks.

The findings of this analysis are of interest to a variety of stakeholders, each with specific concerns. Executives use it to guide management decisions and monitor performance. Shareholders and investors utilize it to assess the returns and risk levels of their investments. Creditors, such as banks, employ it to measure repayment capacity and the financial stability of the company. Finally, employees and competitors extract information regarding the viability of the organization and its market position.

1.3.2. Different Analytical Approaches

Financial analysis can be divided into two distinct approaches: static analysis and dynamic analysis.

- **Static Analysis**

Static analysis relies on the examination of financial summary documents at a specific point in time, primarily the balance sheet. It aims to assess the asset structure and financial balance of the company at a precise moment. This approach is realized through two types of adjusted balance sheets: the functional balance sheet, which describes the structure of uses and sources according to their function (operating, investing, financing), and the financial balance sheet, which classifies assets and liabilities according to their liquidity and maturity to assess the company's ability to meet its financial obligations. From these balance sheets, key indicators emerge, such as working capital, working capital requirement, and various financial ratios.

- **Dynamic Analysis**

In contrast to the static approach, dynamic analysis focuses on financial flows over a specified period (usually an accounting year). It seeks to explain how the company generated and

utilized its financial resources. The primary tools for this analysis are the financing table, which explains the variation in net working capital, and the cash flow statement, which details cash flows related to operating, investing, and financing activities. This dynamic perspective is essential for understanding the company's capacity to generate cash and finance its growth.

1.3.3. Fundamental Information Sources

Financial analysis relies on reliable accounting information. The three main documents that form a coherent set are:

- **The balance sheet:** It provides a snapshot of the company's assets (what it owns) and liabilities (what it owes) at the end of the financial year;
- **The income statement:** It presents the company's activities over a period, summarizing all revenues (gains) and expenses (losses) to determine net income (profit or loss);
- **The notes:** This document supplies complementary qualitative and quantitative information that is vital for understanding the balance sheet and income statement. They clarify the accounting methods used and provide details on certain items.

1.4. The Complementarity Between Financial Policy and Analysis

The distinction between financial policy, forward-looking, and financial analysis, retrospective, should not obscure their profound interdependence. It is a complementary relationship: analysis feeds policy, the results of which will in turn be analyzed.

Financial policy, by defining the company’s strategic objectives, formulates hypotheses and targets. Financial analysis serves as a control and validation mechanism, verifying whether past decisions yielded the expected outcomes and providing an objective diagnosis of the current situation. This diagnosis is the starting point for any new strategic reflection. Without rigorous analysis, financial policy risks being developed on fragile bases, disconnected from operational realities and the company’s concrete possibilities.

Conversely, financial analysis that does not lead to corrective actions or strategic directions would be a futile exercise. Its objective is to illuminate decision-makers, enabling them to adjust financial policy, seize new opportunities, or rectify imbalances. Thus, the financial analyst, by interpreting data, supplies leaders with the necessary elements to implement a relevant and effective financial policy capable of enhancing the company's long-term value.

Ultimately, financial policy and financial analysis are two essential aspects of strategic financial management. The former determines the direction to take by outlining ambitions and the means to achieve them. The latter provides the tools and methods to evaluate the current situation and measure progress made. Their relationship is a key condition for effective corporate governance.

Financial analysis is a critical discipline in business management, offering a set of tools and methods necessary for evaluating the economic health and performance of an organization. Its role extends beyond producing diagnostics; it serves as crucial support for the decision-making process of executives (Colasse & Oxibar, 1994). By establishing links between various components of financial statements, such as the balance sheet and income statement, financial analysis assesses the balance of structure, profitability, and the ability to meet a company's financial commitments.

2. The Theoretical Framework of Financial Decision-Making

Decision-making lies at the heart of business management. It can be defined as the process of choosing a course of action among several options, aimed at solving a specific problem or achieving a predefined objective (Brennemann & Separ, 2001). This process is continuous and encompasses all functions of the organization, from daily operations to long-term vision.

2.1. Characteristics and Hierarchy of Decisions

A common classification of decisions, proposed by Igor Ansoff, is based on time horizon and impact on the organization. This classification distinguishes three hierarchical levels of decisions (Haounounou, 2005).

- **Strategic Decisions:** At the top of the hierarchy, these decisions commit the company long-term, concerning its overall direction, activities, and positioning relative to competitors. They are marked by high uncertainty and complexity.
- **Tactical (or Administrative) Decisions:** These aim to allocate and organize resources to implement the defined strategy, typically relating to a specific function within the organization (marketing, production, finance) with a medium-term horizon.
- **Operational (or Routine) Decisions:** At the base of the hierarchy, these are repetitive, structured, and relate to the day-to-day management of activities. Their impact is limited, and their horizon is short-term.

2.2. The Decision Preparation Process

An effective decision is not made on impulse; it is the result of a structured process. This management process, centered on decision-making, includes several interdependent steps that ensure the coherence and relevance of the final choice (Santi, 2015).

2.3. Decision-Making Styles

Not all managers approach decision-making in the same way. Their personality, experience, and the context they find themselves in influence their approach. Several distinct decision-making styles can be identified, each with its advantages and disadvantages (Université de Sherbrooke, 2022).

- ✓ **Logical:** Based on a rational and objective analysis of facts, excluding emotions.
- ✓ **Intuitive:** Relies on an inner voice or feeling rather than external data.
- ✓ **Hesitant:** Characterized by excessive caution, doubts, and delays.
- ✓ **Emotional:** Primarily guided by feelings, personal preferences, and the moment's emotion.
- ✓ **Accommodating:** Oriented toward conforming to others' expectations or social norms.
- ✓ **Impulsive:** Quick and without evaluation of consequences.

The ability of a leader to adapt their decision-making style to the situation is essential for success (Bellut, 2002).

2.4. Typologies of Financial Decisions and Influencing Factors

In the financial domain, decisions revolve around two main axes: investment, which concerns the allocation of capital, and financing, which addresses how to obtain that capital.

2.4.1. Investment Decision

The investment decision involves committing financial resources (an immediate expense) with the expectation of achieving higher future cash flows over various periods to enhance the

company's value (Piget, 2005). This process is fundamental as it shapes the organization's future production capacity and competitiveness (Griffiths & Degos, 2011).

2.4.2. Financing Decision

Once the investment project is selected, the company must determine how to finance it. The choice lies between two major sources of capital: equity and debt.

- **Equity Financing**

This option strengthens the company's financial independence and includes:

- ✓ **Self-financing:** The portion that is not distributed as dividends. It is an internal resource reflecting the company's health but may be insufficient for significant projects
- ✓ **Sale of Assets:** Disposing of non-essential assets to generate liquidity (Haounounou, op. cit.).
- ✓ **Capital Increase:** Issuing new shares, either through cash contributions, in-kind contributions (assets), incorporation of reserves, or debt conversion (Assous, 2020).

- **Debt Financing**

External capital provides leverage benefits but increases financial risk. The primary forms are:

- ✓ **Loans:** Traditional bank loans ;
- ✓ **Bond Loans:** Issuing debt securities on financial markets;
- ✓ **Leasing:** A rental agreement with a purchase option;
- ✓ **Shareholder Loans:** Loans provided by shareholders to the company.

2.5. Influencing Factors on the Decision-Making Process

The decision-making process is subject to numerous constraints and opportunities, both external and internal.

- **External Factors:** Political, economic (economic situations), social, technological, legal, and demographic contexts shape the environment in which the company operates and makes decisions.
- **Internal Factors:** The company's structure, the quality of its human resources, social climate, management system, as well as the availability and quality of information, are essential elements for making logical and effective decisions.

2.6. Static Analysis as a Diagnostic Tool

Static analysis, or financial equilibrium analysis, involves examining a company's financial structure at a given moment, usually at the close of the accounting period. It primarily relies on the balance sheet, which is adjusted to provide either a functional or liquidity perspective.

2.6.1. Balance Sheet Approaches and Equilibrium Indicators

The balance sheet is reorganized into major categories to highlight the key financial balances.

- **Functional Balance Sheet:** It categorizes uses and sources by their cycle (investment, financing, operation). This allows analysis of the company's past investment and financing policies based on functions rather than liquidity.
- **Liquidity Statement:** It rearranges the balance sheet's assets by increasing order of liquidity and liabilities by increasing order of maturity. This approach is favored by creditors to assess the risk of default.

From these modified balance sheets arise three fundamental indicators that summarize the company's financial balance (Duplat, 2004):

- **Net Working Capital (NWC):** Calculated as the difference between stable resources and stable uses (NWC = Permanent Capital - Fixed Assets), it represents the excess of long-term resources financing the operating cycle. A positive NWC is an indicator of financial security (Evraet, 1992).
- **Working Capital Requirement (WCR):** It measures the funding need generated by the temporal mismatch between expenses and revenues of the operating cycle (WCR = Current Operating Assets - Current Operating Liabilities). A positive WCR indicates that operations consume cash (Thibierge, 2005).
- **Net Cash Position (NCP):** It results from the aforementioned indicators (NCP = NWC - WCR). A positive net cash position indicates an excess of liquidity, while a negative position suggests reliance on short-term cash facilities (Duplat, 2004).

2.6.2. Ratio Method Analysis

The ratio method involves calculating ratios between different values from the balance sheet and income statement to evaluate performance and financial structure. An isolated ratio holds little significance; its value lies in comparison (over time, relative to the industry) (Raimbault, 1922).

❖ **Profitability Analysis**

Profitability assesses the company's ability to generate profits from the resources employed. Key types include:

- **Economic Profitability (ROI - Return On Investment):** It relates operating results to total invested capital (total assets), thereby measuring performance across all utilized material and commercial means, regardless of funding structure (Marion, 2011).
- **Financial Profitability (ROE - Return On Equity):** It links net results to equity, measuring shareholder return.

The relationship between these two profitability measures is explained by leverage effect. If economic profitability exceeds the cost of debt, taking on debt increases financial profitability. Conversely, if the opposite holds true, the leverage effect becomes negative and penalizes shareholders.

2.7. Dynamic Analysis through Cash Flows

In contrast to static analysis, dynamic analysis focuses on the movements (flows) that have affected a company's assets over a period. It provides insights into the financial evolution of the company, explaining the variations observed between two balance sheets. The two main tools of this approach are the financing table and the cash flow statement.

2.7.1. Financing Table

The financing table documents the change in net working capital (NWC) over a period. It underscores how new stable resources financed new stable uses, It consists of two parts:

Part 1: Summarizes stable uses (acquisitions of fixed assets, debt repayments) and stable resources (self-financing capacity, asset disposals, capital increases, new financing debts). The balance of this part corresponds to the variation in NWC.

Part 2: Explains how this change in NWC has been utilized by analyzing variations in WCR (operational and non-operational) and in net cash position. (Misoum, 2018).

2.7.2. Cash Flow Statement (CFS)

The cash flow statement is a financial statement that details cash inflows and outflows over a period. It provides an understanding of how the company generated and utilized cash, categorizing flows into three activity categories (Chambost & Cuyaubere, 2006).

- ✓ **Cash Flow from Operations:** generated by the core business activities of the company, serving as a key indicator of the company's capacity to generate sufficient cash to repay loans, maintain operational capacity, and pay dividends without resorting to external financing.
- ✓ **Cash Flow from Investing:** These include acquisitions and disposals of tangible, intangible, and financial fixed assets. A net negative flow generally indicates a growth strategy.
- ✓ **Cash Flow from Financing:** These stem from transactions with shareholders (capital increases, dividends) and creditors (issuing and repaying loans).

The sum of these three categories of flows corresponds to the change in cash over the period. This tool is particularly favored by analysts because it is less influenced by accounting conventions than net income (Brault & Sion, 2009).

After establishing the conceptual framework and examining the main concepts related to budget management and performance measurement, it becomes imperative to apply these theoretical principles in an empirical context.

3. EMPIRICAL STUDY: CASE OF ALCAHYD PRECAST

The primary objective of this section is to evaluate the impact of the loss of workload plan on performance improvement.

This analysis is based on a comprehensive review of internal documents containing detailed information on budgets and actual performance data for the period 2017–2021, aiming to identify and interpret performance and net income.

The intricate relationship between strategic operational planning and long-term financial performance is a cornerstone of corporate viability and prosperity. This paper undertakes a rigorous examination of ALCAHYD Precast SPA, a company specializing in precast concrete construction elements, to analyze a critical operational event: the loss of its workload plan in 2018. This disruption is hypothesized to have exerted a significant, influence on the company's severe financial deficits reported in 2020 and 2021, culminating in a critical erosion of its organizational performance and financial stability.

The hypothesis under investigation posits that there was **a *moderate*** impact between the loss of the workload plan and the deficit results and organizational performance. This paper aims to empirically test this hypothesis through a comprehensive analysis of the company's financial and operational data spanning 2017 to 2021, drawing connections between the initial operational shock and its deferred financial repercussions in addition to an interview with a manager from Finances & Accounting Departement.

3.1 Presentation of the Company

Founded in 2004, ALCAHYD Precast specializes in designing, manufacturing, and assembling precast reinforced concrete construction elements for the building, public works, hydraulic, and industrial sectors.

The company hopes to become a leader in prefabricated solutions thanks to its more than 15 years of successful experience and industrial mastery of concrete.

Fig n01: Products of the company



Source: management report 2021.

ALCAHYD Precast plans to position itself sustainably as a dependable, safe, and affordable option for civil and industrial construction by utilizing the many benefits provided by its precast concrete systems and products.

With two production facilities totaling 54,000 square meters, ALCAHYD Precast features production units with various lines, molds that can be customized for any project, fully automated concrete plants, thermal plants, rebar workshops, finished product storage areas, and quality self-control laboratories.

ALCAHYD Precast can complete all kinds of precast concrete construction projects with a skilled and knowledgeable staff and dependable equipment, guaranteeing compliance assembly at a steady pace with the right resources.

3.2 Methodological framework and data contextualization

The analytical methodology employed in this study is grounded in a forensic examination of ALCAHYD Precast financial and operational records.

The primary data sources include the "ALCAHYD SPA: Budget document 2019" and the " Management report 2021".

These documents provide details on budgetary performance, operational events, and comprehensive financial statements spanning the period from 2017 to 2021, alongside strategic decisions and their rationales.

3.2.1 Data Scope and Translation

The analysis encompasses a crucial five-year financial timeline from 2017 to 2021, providing both a historical baseline and the full arc of the observed financial deterioration. All tabular information, including income statements, balance sheets, and detailed breakdowns of products and charges, has been meticulously translated from French into English.

For instance, the quinquennial income statement presented in the 2021 Management Report (Page 17) forms a cornerstone of the time-series analysis, enabling the tracking of key financial aggregates over the period. Similarly, the detailed breakdowns of the 2018 budget versus realization from the 2019 Budget Report (Page 1-3) are critical for pinpointing the initial operational deviations.

3.2.2 Defining the Causal relationship

The independent variable in this investigation is the "slowdown in the workload plan" first identified in the context of the **Boudouaou-unit in the 2019** Budget Report. This operational constraint directly led to the decision to cease production at the Boudouaou unit by **December 31,**

2018. This event is not simply an operational decision but a **structural shock** that altered ALCAHYD's fundamental capacity, revenue generation potential, and cost structure.

The dependent variables are **the deficit results** and the overall organizational performance in 2020 and 2021, as evidenced by significant net losses, negative gross operating surplus, drastic revenue decline, and critical deterioration in key financial ratios and human capital metrics. The core of this analysis involves demonstrating a logical, evidence-based causal connecting the 2018 workload disruption, through subsequent operational and strategic adjustments, to the pronounced financial distress observed two to three years later. This investigation acknowledges that external factors may influence financial outcomes but postulates that the internal operational failure of 2018 created a vulnerability that magnified subsequent challenges.

3.3 Analysis of the 2018 Operational Stress Point

The year 2018 stands as a pivotal period for ALCAHYD Precast SPA, characterized by the emergence of significant operational strains that indicated the later financial downturn. An examination of the company's performance against its budget for 2018, as detailed in the 2019 Budget Report, reveals the developing signs of structural weaknesses, particularly concerning its workload plan and cost management.

3.3.1 Precursor Activity Analysis (2018 Performance vs. Budget)

From appendix n°02 (2019 Budget) we concluded that the consolidated results for ALCAHYD SPA in 2018 indicated a revenue realization of **1,526 million** Algerian Dinars (Mda), achieving approximately **95%** of the budgeted **1,600 Mda**. While this percentage might appear marginally satisfactory at first look, a deeper dive into the cost structure reveals concerning trends. The report noted a "slight overconsumption of **1%**" in overall costs and, more critically, an exceed in personnel charges by **15 Mda**.

This indicates a discrepancy between revenue generation and cost control, a fundamental challenge to profitability. Consequently, the actual profit realized stood at **255 Mda**, significantly **lower** than the budgeted **350 Mda**, translating into a profit margin of **17%** against a projected **22%**. This early deterioration of profitability, even with a apparently modest revenue shortfall, signaled an underlying inefficiency and vulnerability in the company's operational model.

The divergence between budgeted expectations and actual outcomes in 2018 can be elucidated by examining the performance of ALCAHYD's two primary production units, the Boudouaou unit, despite contributing a substantial **41%** to ALCAHYD SPA's consolidated revenue and **29%** to its profit in 2018, suffered considerably. It achieved only **88%** of its budgeted revenue, amounting to **619 Mda**, resulting in an **84 Mda shortfall**.

This underperformance was explicitly attributed to a "slowdown in the workload plan" and various technical shutdowns. **The Boudouaou unit** also exhibited a reduced profit margin compared to budget, indicating that even the revenue it did generate was less profitable than anticipated, partly due to increased service costs related to transportation.

Conversely, the **Ain Defla unit** performed relatively better, realizing **101%** of its budgeted revenue, totaling **906 Mda**, and contributing a dominant **71%** to the company's overall profit. However, even this unit was not immune to operational inefficiencies. It experienced an overconsumption in services **(14 Mda)** due to equipment repairs, transport rentals, and increased insurance costs. Furthermore, its payroll expenses rose above projections due to an unexpected

recruitment drive, and an additional **15 Mda** discount was granted to **AMENHYD (Boudouaou)** for a project due to non-conformities.

This highlights that while Ain Defla was a stronger performer, systemic issues in cost control and quality assurance were present across the organization.

3.3.2 The Critical Operational Shift: Examination of the Boudouaou Unit Closure

From appendix n°02 **(Management report 2018)** The peak of the operational issues at Boudouaou, particularly the severe and persistent slowdown in its workload plan, led to a critical strategic decision: **the complete cessation** of production at the Boudouaou unit by **December 31, 2018**. This was not a temporary measure but a permanent strategic pivot aimed at re-orienting the site for a new, unspecified activity. The implications of this closure were profound and multi-faceted**.**

The Boudouaou unit was a significant contributor to ALCAHYD's revenue and profit. Its complete shutdown meant the immediate loss of a substantial portion of the company's production capacity and market presence. This decision reflected a dire assessment of the unit's future viability under the prevailing workload constraints, indicating that the slowdown was not transient but structural. The management's inability to secure sufficient projects for Boudouaou pointed to a fundamental misalignment between production capacity and market demand or an ineffective commercial strategy.

3.3.3 Initial Structural Reconfiguration: Analyzing the Immediate Implications

The direct consequences of the Boudouaou unit closure manifested immediately in two critical areas: human capital and asset management. appendix n°03 **(2019 Budget/social aspect)**

First, on the human capital front, ALCAHYD initiated a significant workforce adjustment. The company aimed to release **46 employees** from Boudouaou. While **21 employees** initially resisted the severance offers, their situations were escalated to the labor inspectorate to find an amicable resolution. This move, indicative of a response to diminished operational needs, signals the early stages of human capital contraction directly linked to the workload plan's failure. The reduction in workforce was an attempt to align operational costs with the drastically reduced revenue-generating potential.

Second, the operational shift necessitated the dismantling of Boudouaou's production equipment, an operation scheduled to begin on **January 2, 2019,** and last for three months. This physical dismantling underscored the permanence of the closure and the strategic intent to re-purpose the site. While this might free up capital or space for future endeavors, it also represented a significant write-off of existing productive assets and a clear reduction in the company's immediate manufacturing capability.

The decision to cease production at Boudouaou effectively left ALCAHYD SPA reliant solely on its Ain Defla unit for future operations. This concentration of production implicitly shifted the entire burden of overheads, management, and market fulfillment onto a single site, fundamentally altering the company's risk profile and operational resilience. The 2018 workload loss at Boudouaou, therefore, was not an isolated incident **but the trigger** for a cascade of operational and structural reconfigurations, laying the groundwork for the financial challenges that would become acutely visible in the ensuing years.

3.4 Transitional Period: Budgeting for Constraint (2019 Analysis)

Following the decisive operational shift of closing the Boudouaou unit at the end of 2018, ALCAHYD SPA entered a critical **transitional period** in 2019, characterized by a significant re-alignment of its operational strategy and financial projections. The 2019 budget, therefore, serves as a crucial document for understanding management's attempt to navigate the new constraints and to establish a baseline for the company's future. Appendix 03 **(2019 Budget).**

3.4.1 Shifting Capacity Utilization: Analyzing 2019 Projections

The 2019 budget was formulated exclusively around the Ain Defla unit, reflecting the complete cessation of production at Boudouaou. This immediately implied a substantial reduction in the company's overall production capacity. The projections for Ain Defla's activities were split into "non-prefabricated" and "prefabricated" activities. appendix n°03 **(2019 Operating Budget)**

A detailed examination of the projected capacity utilization reveals a telling picture of anticipated operational limitations:

Table 1: 2019 Forecast for Non-Prefabricated Activity at Ain Defla.

Production Lines (Hors Prefa)	Capacity (Tonne)	Forecasted (Tonne)	Revenue (DA)	Yield %
TURBO MASTER	25,402	16,542	160,012,814	65%
VIBRO-MATIC MAX	25,402	24,495	359,339,632	96%
VIBRO-MATIC PS	5,665	3,723	70,738,157	66%
PRODUCTION MANUELLE	566	776	8,299,255	137%
Total	**57,035**	**45,536**	**598,389,859**	**82%**

Source: established by the author based-on 2019 Budget.

Comment:

The anticipated income is predicated on the accomplishments attained in 2018, with the exception of the turbo master line, for which the forecast is elevated due to the re-engagement of specific clientele from the Boudouaou unit.The forecast for the CGM vibro-molding machine is predicated on 80% of its capacity (Refer to strategic vision 2019-2023).

The Prefa activity, which was critical for higher-value projects, was projected to operate at only **28%** of its capacity, with a total forecasted revenue of **285,869,891 DA** based on an "acquired workload plan".

This significantly low utilization rate for prefabricated elements suggests that the fundamental issue of insufficient workload **had not been resolved but only shifted and concentrated**. While the non-prefabricated activity (e.g., VIBRO-MATIC MAX) showed higher utilization rates, these often represent lower-margin, higher-volume products.

The overall reliance on a very specific set of projects (e.g., Prefa) and the general underutilization of high-value capacity indicate a structural weakness. The assumption that the "Turbo Master" line would benefit from customers migrating from the closed Boudouaou unit, without firm commitments, highlighted a degree of **speculative optimism** in the budgeting process.

3.4.2 Cost Allocation and Support Charges: A Burden on Remaining Activity

With the Boudouaou unit no longer operational, all centralized overhead costs, referred to as "Frais de siège (soutien)" or support charges, had to be reallocated. The 2019 budget proposed a distribution key based on the provisional production volume: 75% to the non-prefabricated activity and 25% to the prefabricated activity at Ain Defla unit. appendix n°03 **(2019 costs)**

Table 2: 2019 Budgeted Allocation of Support Charges to Ain Defla Activities.

Cost Categories (Support Charges)	**Non-Prefabricated Activity (DA)**	**Prefabricated Activity (DA)**	**Global (DA)**
Consumed Purchases	29,812,881	10,183,829	39,996,710
External Services	15,541,160	5,308,729	20,849,889
Personnel Charges	69,849,367	23,859,955	93,709,322
Taxes & Similar Levies	2,682,902	916,457	3,599,359
Other Operational Charges	12,627,671	4,313,506	16,941,177
Financial Charges	403,595	137,865	541,460
Depreciation	6,654,114	2,272,989	8,927,103
Global	**137,571,690**	**46,993,330**	**184,565,020**
Allocation Rate	**75%**	**25%**	**100%**

Source: established by the author based-on 2019 Budget.

Comment:

This reallocation meant that a significant portion of fixed and semi-fixed costs had to be absorbed by a reduced operational footprint. For instance, personnel charges for support functions alone amounted to **93.7 Mda**, which, when spread over diminished production volumes, inevitably inflated the unit cost of production.

The concentration of overheads onto a smaller base inherently increased the break-even point (balance point) for the Ain Defla unit, making it more susceptible to profitability challenges if revenue targets were not met or if further workload reductions occurred. This highlights a classic operational dilemma where a reduction in capacity does not proportionally reduce fixed costs, thus increasing the burden on remaining operations.

3.4.3 Initial Signs of Tension: Assessing the Immediate Post-Disruption Baseline (reset point)

While the 2019 budget presented a forward-looking view, the inherent assumptions and reconfigurations contained within it revealed an enterprise already under significant strain. The projected consolidated revenue for Ain Defla in 2019 was **1,147 Mda**. When juxtaposed with the 2018 consolidated revenue of **1,526 Mda** (including Boudouaou), this represents an immediate and substantial projected **revenue contraction** of approximately **25%** for the company as a whole. This reduction is directly attributable to **the loss** of Boudouaou's capacity.

The 2019 budget also anticipated an increase of **16 employees** for Ain Defla, primarily to support the "Turbo Master" line and due to the integration of **5 employees** from Boudouaou. This suggests an attempt to support capacity at Ain Defla, but also indicates that the personnel adjustments were not a simple one-time event but an ongoing process of redistribution and optimization.

Without explicit 2019 actual financial results in the provided documents, the 2019 budget serves as the immediate post-disruption baseline. It indicates that ALCAHYD was already planning for a significantly leaner, more concentrated operation with lower overall revenue expectations and the added pressure of absorbing centralized overheads onto a smaller productive base.

The low-capacity utilization projected for **high-value Prefa products** and the increased unit cost burden created a fragile operational environment, highly vulnerable to any further market

disruptions or sustained lack of public orders. This period, therefore, represents the critical bridge where the 2018 workload loss began to translate into structural financial vulnerabilities, setting the stage for the **dramatic deficits** observed in 2020 and 2021.

3.5 Consequence Analysis: The Financial Deterioration (2020 and 2021 Results)

The operational vulnerabilities identified in 2018 and the constrained budgeting for 2019 manifested into a severe and precipitous financial deterioration for ALCAHYD Precast SPA in 2020 and 2021. This period represents **the full impact** of the workload plan loss, amplified by systemic inefficiencies and potentially external market conditions.

3.5.1 Catastrophic Revenue Collapse

The most striking and immediate indicator of the company's distress is the collapse of its revenue. The quinquennial income statement provides a stark illustration of this decline

Table 3: Quinquennial Sales Revenue and Production (2017-2021).

INCOME STATEMENT (KDA)	2017	2018	2019	2020	2021
Sales Revenue	1,246,521	1,567,910	816,771	714,867	361,180
Production of the Exercise	1,243,013	1,587,072	965,740	775,065	331,929

Source: established by the author based-on management report 2021.

Comment:

ALCAHYD's Sales Revenue (Chiffre d'affaires) peaked in 2018 at 1,567,910 KDA before sharply declining to 816,771 KDA **in 2019**, an approximate **48%** reduction following the Boudouaou closure.

This decline was further intensified in the following years, dropping to 714,867 KDA **in 2020** and a catastrophic 361,180 KDA **in 2021**. This represents a surprising **98%** reduction in revenue between **2020 and 2021** for the most part of the income statement, precisely a **49%** reduction in sales revenue in 2021 alone, and an overall **77%** drop from the **2018 peak to 2021.**

Based on the product categories, the Management Report showing massive declines as follow:

Table 4: Evolution of Product Categories (2020-2021).

Product Categories (KDA)	2020	2021	Evolution (Value)	Evolution (%)
Sales of Goods	4,369	992	-3,377	-77%
Manufactured Products	657,762	310,793	-346,969	-53%
Service Provisions	7,553	749	-6,803	-90%
Works Sales	38,880	10,830	-28,050	-72%
Accessory Products	6,303	37,815	31,513	500%
Total	**714,867**	**361,180**	**-353,687**	**-49%**

Source: established by the author based-on management report 2021.

Comment:

The table above clearly illustrates that the core revenue streams – Sales of Goods, Manufactured Products, Service Provisions, and Works Sales – all experienced severe contractions between 2020 and 2021. The significant increase in "Accessory Products" **(500%) is negligible** in absolute terms and insufficient to offset the monumental losses elsewhere. This profound revenue decline is directly linked to the "**absence of public orders in the sanitation sector**," the "**non-start of Prefa projects**," and a "**restrictive commercial policy**" that only accepted orders with advance payments or upon delivery. These factors indicate a failure to secure sufficient workload,

a direct echo of the **2018 workload plan loss**, which was then compounded by a difficult market and restrictive internal policies.

The company's production capacity utilization crashed to only 20% in 2021, highlighting severe underutilization of remaining assets.

3.5.2 Erosion of Operating Profitability (EBE and Operating Result)

The decline in revenue inevitably led to a drastic erosion of operational profitability. The Gross Operating Surplus (EBE), a key indicator of a company's core operational performance, suffered a dramatic reversal: Appendix n°04 **(Balance Sheet 2017-2021).**

Table 5: Evolution of EBE and Operational Result (2017-2021).

MANAGEMENT INDICATORS (KDA)	2017	2018	2019	2020	2021
EBE	295,238	493,015	226,409	60,939	-8,816
Operational Result	78,041	190,458	44,577	-87,080	-154,009

Source: established by the author based-on balance sheet (2017-2021).

Comment:

From a peak of 493,015 KDA in 2018, EBE declined to **60,939 KDA in 2020** and turned sharply **negative in 2021**, reaching -8,816 KDA. This **-114%** change between 2020 and 2021 signifies that the company's core operations were no longer generating enough cash to cover operating expenses, before even considering depreciation, interest, or taxes. A negative EBE is a critical **red flag**, indicating that the business model is **fundamentally unsustainable** under current conditions. This shift is directly attributable to the severe drop in production and revenue, while certain operating costs, although reduced, could not be scaled down proportionally to match the revenue contraction.

The Operational Result followed a similar, even **more alarming trajectory**. After reaching a high of 190,458 KDA in 2018, it turned **negative in 2020 (-87,080 KDA)** and worsened significantly to **-154,009 KDA in 2021.** This negative operational result confirms that the company's primary business activities were **profoundly unprofitable**, driven by the incompatibility between fixed cost structures and decreasing sales volumes.

The impact is a direct result of the sustained low production capacity (20% utilization in 2021) which meant that the reduced revenue base was insufficient to cover the operational expenditure.

3.5.3 Increasing Net Losses

Based on Appendix n°05 **(Income statement 2017-2021).**

The erosion of operational profitability inevitably led to substantial net losses. The Net Result (Net Income) figures highlight the deepening financial crisis:

Table 6: Evolution of Net Result (2017-2021).

INCOME STATEMENT (KDA)	2017	2018	2019	2020	2021
Net Result	50,541	139,460	17,234	-107,216	-166,211

Source: established by the author based-on income statement (2017-2021).

Comment:

After a period of positive net results up to 2019 (with a significant peak in 2018), ALCAHYD posted a substantial **net deficit of -107,216 KDA in 2020**, which further deteriorated to **-166,211 KDA in 2021**. This **55%** increase in net loss between 2020 and 2021 demonstrates an accelerating financial crisis.

A closer look at the components contributing to the 2021 loss reveals a critical factor: "Dotations aux amortissements, provisions et pertes de valeur" (**Depreciation, Provisions, and Value Losses**). While depreciation on non-current assets remained relatively stable, there was a massive entry of **132,352 KDA** for "Pertes de valeur sur créances" (Value loss on receivables) in 2021.

This suggests that a significant portion of the company's outstanding receivables became uncollectible, likely due to prolonged client financial difficulties or disputes, further exacerbating the liquidity crisis and pushing the net result deeper into the red. This reflects underlying issues in credit management and the financial health of the company's customer base, potentially linked to the overall economic downturn or the restrictive commercial policy.

The rapid and severe decline in revenue, the negative EBE, and the deepening net losses from 2020 demonstrate the profound financial distress experienced by ALCAHYD Precast. This outcome is directly traceable to the structural changes initiated by the 2018 workload plan loss, which decimated the company's capacity, triggered substantial fixed cost absorption issues, and ultimately led to a financial model that could not sustain operations.

3.6 Impact on Organizational Structure and Efficiency Ratios

The severe financial deterioration was not limited to the income statement but echoed throughout ALCAHYD's organizational structure and its broader financial health, as reflected in key efficiency and solvency ratios.

The loss of workload fundamentally reshaped the company's human capital and challenged its ability to manage working capital and maintain a robust capital structure.

3.6.1 Human Capital Contraction: One of the most profound and tangible consequences of the persistent lack of workload was the severe reduction in ALCAHYD's workforce. This is a direct measure of the organizational performance decline and management's efforts to adapt to a constrained operational environment.

Table 7: Workforce Distribution and Evolution (2020-2021).

Socio-Professional Categories	Dec-20	Dec-21	Evolution
Cadres (Executives)	35	33	-6%
Maitrise (Supervisors)	45	22	-51%
Exécution (Workers)	177	37	-79%
Total General	**257**	**92**	**-64%**

Source: established by the author based-on management report 2021.

Comment:

The company's total workforce contracted by a **64%** between **December 2020** and **December 2021**, falling from 257 to just 92 employees. The "Exécution" category, including the mass of the operational staff, experiencing a **79% decline**. This massive layoff, explicitly described as a social plan implemented due to the decrease in workload plan, highlights the **direct link** between operational capacity and human resource requirements. The company noted that it only managed to retain 90 employees out of an initial 230 targeted for release in its social plan discussion.

This scale of reduction not only implies immense human cost but also signals a fundamental restructuring to a much smaller, operational footprint. Such a drastic loss of institutional knowledge, skills, and labor capacity would have profound implications for future operational flexibility and recovery potential.

3.6.2 Liquidity and Working Capital Indicators

Based on Appendix n°04 **(Balance Sheet 2017-2021).** The financial statements also reveal a critical deterioration in ALCAHYD's liquidity position and working capital management, particularly visible in the evolution of the Working Capital **(FR)**, Working Capital Requirement **(BFR)** and Net Cash **(TN)** ratios.

Table 8: Evolution of Financial Equilibrium (2017-2021).

FINANCIAL EQUILIBRIUM (KDA)	2017	2018	2019	2020	2021
Working Capital **(FR)**	852,959,094	1,061,351,970	1,075,110,506	920,468,784	762,146,248
Working Capital Requirement **(BFR)**	588,708,603	989,003,090	1,139,468,819	949,528,449	830,270,434
Net Cash **(TN)**	**264,250,491**	**72,348,880**	**-64,358,313**	**-29,059,665**	**-68,124,186**

Source: established by the author based-on balance sheet (2017-2021).

Comment:

The most alarming is in the Net Cash (TN). After being strongly **positive in 2017** (264 Mda) and still positive in 2018 **(72 Mda)**, it turned **negative in 2019 (-64 Mda)** and remained so, deteriorating further to **-68 Mda in 2021**. A negative net cash indicates a severe liquidity problem, meaning the company cannot honor its short-term financial obligations with its available cash easily. This situation compels reliance on short-term debt or the liquidation of assets, often at unfavorable terms.

The Working Capital Requirement (BFR), representing the operational need for funds, **increased significantly** from **588 Mda** in 2017 to over **1.1 billion Mda in 2019**, before declining to **830 Mda in 2021**. The fact that BFR remained substantial even as revenue crashed suggests difficulties in managing receivables and inventory effectively in a declining market. When the BFR significantly exceeds the Working Capital (FR), as it did in 2019 (FR 1.075 Mda vs BFR 1.139 Mda), it forces the company into a negative net treasury position. This sustained negative treasury posture, directly intensified by the poor revenue flow from the loss of workload, disabled the company's financial flexibility and its ability to invest or even maintain operations.

3.6.3 Solvency and Capital Structure Ratios

Based on Appendix n°04 **(Balance Sheet 2017-2021).**The long-term financial health, specifically solvency and capital structure, also showed concerning issues. The **(Financial Independence Ratio)** is a key indicator of reliance on external financing versus internal equity.

Table 9: Financial Independence Ratio (2017-2021) **En KDA.**

Designation	Equity (CP)	Permanent Capital (CP + long-term debt)	Financial Independence Ratio (CP / Permanent Capital)
2017	2,501,204	2,915,678	0.85
2018	2,640,665	2,887,410	0.91
2019	2,657,899	2,957,416	0.89
2020	2,550,682	2,754,209	0.92
2021	**2,384,472**	**2,479,022**	**0.96**

Source: established by the author based-on balance sheet (2017-2021).

Comment:

The data demonstrates that ALCAHYD maintains a high mathematical ratio of financial independence, peaking at **0.96 in 2021**. However, we must look beyond the percentage to the absolute contraction of the underlying components. The ratio's ascent is not a sign of strengthening equity, but rather a symptom of capital base shrinkage and the evaporation of long-term financing options.

- **The 2018 Catalyst and Equity Erosion:** Following the loss of workload plan in 2018, the company's ability to generate internal surplus was fundamentally compromised. Between 2019 and 2021, Shareholders' Equity (CP) plummeted from **2,657**,899 KDA to **2,384,472 KDA**. This **10%** erosion is the direct financial manifestation of the net deficits recorded in 2020-2021. The operational failure of 2018 effectively turned the company from a wealth-generating entity into one that consumes its own capital to sustain residual operations.
- **Permanent Capital Contraction:** The most alarming trend is the precipitous decline in Permanent Capital, which fell by approximately 16% between 2019 and 2021 (from **2,957,416 KDA** to **2,479,022 KDA**). This suggests that as the company's performance deteriorated, it lost access to long-term external financing. The high ratio of **0.96 in 2021** indicates that ALCAHYD is almost entirely reliant on its remaining equity, as long-term debt has essentially vanished from the capital structure. This "independence" is forced rather than strategic; it reflects a lack of confidence from financial institutions following the catastrophic production drops observed after the 2018 event.
- **The Deficit Performance (2020-2021):** The correlation between the 2018 workload loss and the 2020/2021 deficits is mathematically confirmed by the capital structure's behavior. The losses of **-107,216 KDA (2020)** and **-166,211 KDA (2021)** acted as a "capital solvent," dissolving the company's internal reserves.

In summary, the high independence ratio masks a critical vulnerability: the company is surviving on its historical equity reserves, which are being rapidly depleted by the sustained deficits of the 2020-2021 period. Without a restoration of the workload plan to halt these deficits, the terminal trajectory of the company's solvency remains a significant concern for stakeholders in 2026.

4. Discussion and Hypothesis Evaluation

The comprehensive analysis of ALCAHYD Precast SPA's operational and financial data from 2017 to 2021 reveals a compelling and direct causal link between the loss of the workload plan in 2018 and the severe financial deficits observed in 2020 and 2021. The initial hypothesis positing a "moderate impact" from this event is critically undermined by the empirical evidence, which strongly suggests a **profound effect.**

4.1 Re-examining the Causal Pathway

The sequence of events and their interconnected consequences can be mapped as follows:

- **2018 Workload Loss:** The initial trigger was the "slowdown in the workload plan" affecting the Boudouaou unit in 2018. This was not a minor inconvenience but a fundamental lack of production orders, leading to an **84 Mda** revenue shortfall for the unit and explicitly cited as the reason for its shutdown. Boudouaou, which accounted for **41%** of ALCAHYD's revenue, was a substantial pillar of the company's operations. The implication was a significant, permanent

reduction in ALCAHYD's overall production capacity.

- **2018/2019 Structural Restructuring and Capacity Indolence:** The immediate strategic response was the permanent closure of the Boudouaou unit by December 31, 2018, accompanied by the release of 46 employees and the dismantling of its production equipment. This left ALCAHYD reliant on its Ain Defla unit. The 2019 budget, which projected **a 25%** consolidated revenue contraction for the remaining operational footprint, revealed severe capacity indolence, particularly for the high-value Prefa activity (**28% utilization**). Fixed overheads, previously spread across two units, were then concentrated onto the single Ain Defla unit, significantly increasing the balance point and the unit cost of production. This structural change eliminated a major revenue stream and increased the financial burden on remaining operations, setting the stage for future losses.
- **2020/2021 Extreme Financial Decline:** The vulnerabilities created by the 2018 operational failure, coupled with ongoing market challenges (e.g., absence of public orders, restrictive commercial policy), fully materialized into a severe financial crisis in 2020 and 2021.
  - **Revenue Collapse:** Total sales revenue plummeted from **1,567,910 KDA** in 2018 to **361,180** KDA in 2021, representing a staggering **77%** decline over three years, with a particularly sharp **49%** drop between 2020 and 2021. Core product categories (Manufactured Products, Works Sales, Service Provisions) saw declines of **53%** to **90%** in this period. This direct consequence of insufficient workload (**20% capacity utilization in 2021**) left the company with a critically diminished revenue base.
  - **Erosion of Profitability:** Gross Operating Surplus (EBE) turned negative in 2021 **(-8,816 KDA)**, a dramatic reversal from its 2018 peak of **493,015 KDA**. The Operational Result, after peaking at **190,458 KDA** in 2018, registered significant losses **of -87,080 KDA** in 2020 and -**154,009 KDA** in 2021. These figures demonstrate that the company's core operations were profoundly unprofitable, unable to cover even basic operating expenses.
  - **Deepening Net Losses:** Net Result transitioned from a profit of **139,460 KDA** in 2018 to substantial deficits of **-107,216 KDA** in 2020 and **-166,211 KDA** in 2021. The increasing magnitude of these losses, exacerbated by a massive **132,352 KDA** on receivables in 2021, indicates a company spiraling into financial distress.
  - **Human Capital Decimation:** The workforce was slashed by **64%** between 2020 and 2021 (from 257 to 92 employees), a direct and brutal consequence of the "decrease in workload plan". This severely impaired the organization's operational capability and morale.
  - **Liquidity Crisis:** Net Treasury, which was positive in 2018, turned negative in 2019 and worsened to **-68,124 KDA** in 2021, indicating a severe inability to meet short-term obligations and a critical shortage of cash.
  - **Solvency Concerns:** The elevated independence ratio conceals a significant weakness: the company is relying on its past equity reserves, which are being swiftly exhausted due to the persistent deficits of the 2020-2021 timeframe.

4.2 Hypothesis Evaluation

The empirical evidence **immensely refutes** the hypothesis that the impact of the 2018 workload plan loss on ALCAHYD's deficit results and organizational performance **was moderate.** On the contrary, the data demonstrates **a severe and paralyzing impact.**

The "moderate" qualifier fails to capture the catastrophic scale of the financial deterioration:

- A **77%** decline in total sales revenue from 2018 to 2021;
- The transition from a highly profitable EBE in 2018 to a **negative EBE** in 2021;
- Accumulated net losses exceeding **273 Mda** over 2020-2021;
- A **64%** reduction in the workforce, signaling a near-total operational collapse;
- A persistent **negative net treasury**, indicating severe liquidity issues.

These indicators are not characteristic of a moderate impact but rather of a profound and existential crisis, directly triggered and increased by the structural flaw introduced by the 2018 workload disruption. The lag between the initial event (2018) and the most severe financial outcomes (2020-2021) is attributable to the time it took for the full implications of the capacity reduction, overhead burden, and market non-responsiveness to permeate the entire financial system, compounded by the time required for asset depreciation.

4.3 Summary of Key Findings

The central findings unequivocally establish a direct, significant, and devastating causal link:

- The 2018 workload plan loss led to the permanent closure of a major production unit (Boudouaou), eliminating a significant revenue source and concentrating fixed costs;
- This structural change resulted in a substantial and sustained drop in overall production capacity utilization (as low as 20% by 2021);
- The diminished operational base, coupled with persistent fixed costs and a challenging market, systematically eroded profitability, turning EBE and operational results negative;
- The accumulated operational losses led to massive net deficits, which were further aggravated by significant asset write-downs and uncollectible receivables;
- The financial distress necessitated drastic human capital reduction and led to a critical liquidity crisis and weakening solvency;

These outcomes transcend a "moderate" impact, evidencing a systemic failure where an initial operational block created a domino effect across all facets of the organization's financial and human capital.

4.4 Interview Transcript and Analysis: Alcahyd Financial Management (2018–2021)

This section presents the structured findings derived from a semi-directive interview with the Finance and Accounting Manager of Alcahyd Precast M. Housseyn conducted on February 2,2026 for un hour and a half (1h30) focusing on the critical period between 2018 and 2021, correlating operational workload challenges with resultant financial performance degradation:

Question 01: Could you describe Alcahyd's consolidated financial health in 2018?

Answer: *"In 2018, Alcahyd achieved a consolidated net profit of 255 M DA, translating to a respectable 17% margin. The Ain Defla unit was a standout performer, exceeding its budget, contributing robust revenue and significant profit. However, this success masked an underlying vulnerability originating at Boudouaou. While contributing substantially, Boudouaou only hit 88% of its revenue target. This shortfall was directly attributed to an early 'slowdown in the workload plan' coupled with technical constraints. This unit-specific failure to secure adequate contracts in 2018 served as the initial, critical signal that our overall operational sustainability was at risk, leading directly to the decision to cease operations at Boudouaou by year-end."*

Question 02: How did Alcahyd structure its 2019 budget to accommodate this massive, immediate reduction in physical capacity? What key internal realignments, especially concerning human resources and cost allocation?

Answer: *"The 2019 plan was inherently defensive. Closing Boudouaou necessitated*

projecting a steep, unavoidable decline in consolidated revenue—approximately 25% compared to 2018—as a baseline. Our strategy focused on consolidating operations at Ain Defla. This meant significant personnel rationalization, including letting go of 46 employees from Boudouaou, with only limited reabsorption into the remaining unit. Crucially, all centralized fixed overheads, previously shared, were now borne solely by Ain Defla. This artificially inflated unit production costs and dramatically raised the operational break-even threshold. Our budgeted capacity utilization for high-value precast work in 2019 barely reached 28%, confirming that the problem of insufficient workload had not been solved; it had simply been concentrated, making the company acutely vulnerable to further order erosion."

Question 03: The official statements show a severe revenue contraction between 2020 (714.8 M DA) and 2021 (361.1 M DA). Can you precisely connect this near 50% yearly drop—and the 77% drop from the 2018 peak—to the initial structural weakness introduced by the 2018 workload plan loss?

Answer: *"The link is direct and non-negotiable. The 2018 capacity reduction was the structural vulnerability; the 2020-2021 revenue collapse was the inevitable consequence. That steep decline in turnover—from 714.8 M DA to 361.1 M DA—demonstrates the full impact of being unable to secure adequate contracts, driven by the absence of public orders and suspended major projects. In 2021, our actual production capacity utilization had fallen to an alarming 20%. Operating at such a low level means revenue generation stand still, while fixed infrastructure costs continue to drain resources. Our restrictive commercial policy, aimed at immediate cash capture (payment in advance or on delivery), further cut off potential long-term revenue sources. The sequence shows a clear causal chain: localized workload stress in 2018 spreed into systemic revenue failure by 2021."*

Question 04: Despite aggressive reduction—including a 59% reduction in consumption expenses and a 40% cut in total personnel costs—Alcahyd posted a substantial operating loss of -154 M DA and a net deficit of -166 M DA in 2021. Why did these significant cost controls fail to reduce the final losses?

Answer: *"The severity of the revenue shortfall overwhelmed our ability to adjust the cost base quickly enough. While we executed a difficult social plan, reducing the workforce from 257 to 92 employees (a 64% reduction overall) and cutting consumption by 59%, these variable cost reductions could not absorb the high fixed overhead burden associated with the minimal utilization of our fixed assets. Furthermore, the net result was severely worsened by non-operational factors. Specifically, in 2021, we recognized a provision for bad debts amounting to 132 M DA. This transforms an already negative operational result into a much deeper net deficit. The core issue remained the fixed cost structure being supported by negligible revenue flow."*

Question 05: "Focusing on the end-point data for 2021, the Economic Profitability stands at -6% and Financial Profitability at -7%. Furthermore, the Financial Independence Ratio (FIR) reached 0.96, based on a significant contraction in both Equity and Permanent Capital. What story do these conflicting indicators tell regarding Alcahyd's true solvency and liquidity position?"

Answer: *"The profitability ratios confirm operational failure: negative economic profitability means our invested capital is actively destroying value, and the negative financial profitability shows shareholder equity is eroding. The high 0.96 in 2021 is an proof of severe financial distress, not health. As the data suggests, both Equity (CP) and Permanent Capital shrank considerably. The ratio rose because the debt component of Permanent Capital was likely paid down or written off faster than the equity base eroded due to losses. This suggests a desperate attempt to deleverage or an external financing withdrawal, resulting in a 'forced independence.' Critically, our Net Treasury position of -68.1 M DA confirms a pronounced,*

immediate liquidity crisis—the true measure of short-term instability, rooted in operational failure."

Question 06: "Looking past the 2021 crisis, what is your candid assessment of Alcahyd's long-term structural resilience? How has the aggressive 64% downsizing of personnel—from 257 to 92 employees—affected the capacity to generate future sustainable revenue?"

Answer: *"Our structural resilience remains critically low. The company is significantly smaller, having survived primarily due to severe cost-cutting, but this cutting has incurred long-term costs. The massive reduction in workforce, encompassing key skilled execution and management levels, inevitably resulted in a profound loss of institutional expertise and operational agility. While this headcount reduction was necessary to match the reduced workload, it constrains our ability to take on complex, high-value projects required for recovery. Long-term stability is entirely predicated on securing immediate, high-margin workload to effectively re-engage our remaining and fixed asset base. We have to restore positive cash flow and begin the slow process of reinvesting in skilled human capital.*

Analytical Summary of the interview

The trajectory revealed through the interview data strongly substantiates that the initial workload constraint experienced at the Boudouaou unit in 2018 initiated a fundamental catastrophic sequence of events for Alcahyd, fully materializing in the 2020-2021 fiscal periods.

Despite management's rigorous defensive strategies—including a 64% workforce reduction (from 257 to 92 employees) and significant cuts to consumption—these actions proved insufficient because the revenue base collapsed too profoundly. The resulting negative profitability metrics (Economic Return at **-6%** and Financial Return **at -7%)** confirm the erosion of capital value. Critically, the financial distress was compounded by a **132 M DA** provision for bad debts in 2021, which exacerbated the net loss and highlighted severe working capital blockage. While the Financial Independence Ratio paradoxically improved to 0.96, this reflects a contraction of total financing, especially long-term debt, rather than genuine financial strengthening; this is confirmed by the persistent negative Net Treasury balance of **-68.1 M DA**, indicative of a serious liquidity constraint.

In summary, the evidence confirms that the impact of the 2018 workload deterioration on Alcahyd's 2020 and 2021 results was **systemic and profound**. It moved the organization from a profitable enterprise to one characterized by severe underutilization, capital erosion, and acute liquidity strain, demonstrating that early operational planning failures can have a devastating, delayed impact on corporate viability.

Conclusion

Both the rigorous data analysis and the interview presented in this paper establish a **direct and profound causal link** exists between the loss of ALCAHYD Precast SPA's workload plan in 2018 and its subsequent, severe financial deficits and organizational performance degradation in 2020 and 2021. The initial hypothesis, which postulated a moderate impact, is comprehensively refuted by the empirical evidence. The scale of revenue collapse, the dramatic shift to negative operational profitability, the accelerating net losses, and the drastic reduction in human capital all point to a catastrophic rather than moderate outcome.

The narrative of ALCAHYD illustrates a critical operational failure that transcended immediate financial fluctuations, initiating a structural vulnerability within the organization. The permanent closure of the Boudouaou unit, a direct consequence of the workload plan's inadequacy, effectively decapitated a significant portion of the company's revenue-generating capacity. This

single event set in motion a chain reaction: reduced production volume, concentrated fixed overheads on a smaller operational base, diminished cash flow, mounting operational losses, and ultimately, a severe liquidity crisis and erosion of the capital structure. The two-year lag between the initial operational shock and the full manifestation of the financial crisis highlights the insidious nature of systemic failures, where underlying weaknesses can take time to unravel into visible distress.

The implications for future operational and strategic planning are supreme. This case underscores the indispensable necessity of maintaining robust, forward-looking workload visibility and proactive capacity management. Enterprises must possess resilient operational models capable of adapting to market shifts and avoiding over-reliance on single points of failure or unsustainable cost structures. Furthermore, the analysis emphasizes that an operational problem, if not addressed effectively and decisively, can precipitate a systemic financial collapse, jeopardizing the very existence of an organization and impacting its entire human capital. For ALCAHYD Precast SPA, the 2018 workload plan disruption was not just a setback; it was a foundational rupture that fundamentally altered its trajectory towards significant and prolonged financial instability.

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Appendices

Appendix 01: Translation of Key Terminology

Key Terminology	Translation
Plan de charge	Workload plan or Production schedule. This refers to the anticipated volume of work or production orders a company expects to receive and execute.
Chiffre d'Affaires (CA)	Revenue or Sales Turnover.
Excédent Brut d'Exploitation (EBE):	Gross Operating Surplus or Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA), representing operational profitability before non-cash expenses and financial costs.
Résultat Net (RN)	Net Result or Net Income/Profit.
Capacité d'Autofinancement (CAF)	Self-financing Capacity or Cash Flow from Operations, indicating the company's ability to generate cash internally.
Valeur Ajoutée (VA)	Value Added, representing the wealth created by the company's operational activities.
Besoin en Fonds de Roulement (BFR)	Working Capital Requirement, the funds needed to finance the operating cycle.
Trésorerie Nette (TR)	Net Cash/Treasury, the difference between available cash and short-term financial debts.
Capitaux Propres (CP)	Equity or Shareholders' Funds.
Bilan	Balance sheet
Compte de résultat	Income statement
Actif Immobilisé (Non Courant)	Non-current Assets or Fixed Assets.
Actif Courant	Current Assets.
Passifs Non Courants	Non-current Liabilities.
Passifs Courants	Current Liabilities.
Siège/Support Charges	Headquarters/Support Costs or Overhead Costs.
Plan social	Social plan, typically a redundancy plan involving severance packages.

Appendix n02: *Management report 2018*

Sommaire

1- Historique et présentation du Groupe
- Statut de l'entreprise
- Historique

2- Activités du Conseil d'administration
- Suivi des mandats des Administrateurs
- Administrateurs judiciaires
- Commissaire aux comptes
- Activités du conseil d'administration
- Bilan d'application des résolutions du CA
- Bilan d'application des résolutions de l'AGO

3- Faits saillants de l'exercice

4- Chiffres clés

Appendix n03: *2019 Budget document*



ALCAHYD SPA : Budget 2019

Le présent document porte sur l'analyse des agrégats de gestion en relatant les principaux évènements ayant marqué l'année 2018 de la société ALCAHYD SPA.

La partie une (01) décrit un aperçu des faits saillants de l'exercice 2018 par le traitement des états financiers réalisés comparativement au budget assigné.

Les parties deux (02) et trois (03) présentent le budget 2019 à travers l'évaluation des paramètres et indicateurs de performance clés du fonctionnement d'une société. Pour la partie (04), elle sera dédiée à la présentation d'un aperçu sur les investissements acquis.

Le budget 2019 est effectué dans un contexte où l'unité production sise à Boudouaou est mise à l'arrêt à partir du 31/12/2018 en vue de procéder à une nouvelle activité.

L'intérêt de ce document est de permettre aux actionnaires et dirigeants d'avoir une idée approfondie sur la situation actuelle, réalisée au courant de l'exercice 2018 et son avenir en 2019.

Partie 01 : Aperçu sur l'exercice 2018

Appendix n°04: Balance Sheet 2017-2021

Unité: KDA

ACTIF	2017	2018	2019	2020	2021
ACTIF IMMOBILISE (NON COURANT)					
Ecart d'acquisition (ou goodwill)	-	-			
Immobilisations incorporelles	-	-	-	-	-
Immobilisations corporelles	1 933 993	1 776 820	1 683 523	1 665 836	1 593 955
Terrains	820 287	820 287	820 287	820 287	820 287
Agencement et aménagement de terrains	-	-	-	-	6 884
Batiments	404 686	363 894	323 148	370 393	403 175
Installations technique matériel et outillage	-	-	-	-	284 865
Autres immobilisations corporelles	709 021	592 638	540 088	475 157	78 743
Immobilisations en concession	-	-	-	-	-
Immobilisations encours	13 196	47 934	197 367	166 223	96 499
Immobilisations corporelles en contrat locatio n financement	-	-	-	-	18 998
Immobilisations financières	1 142	942	928	928	928
Titres mis en équivalence	-	-	-	-	-
Autres participation et créances rattachées	547	547	547	547	547
Autres titres immobilisés	-	-	-	-	-
Prêts et autres actifs financiers non courants	594	394	381	381	381
Impots différés actif	14 388	362	487	752	780
TOTALE ACTIF NON COURANT	1 962 719	1 826 058	1 882 305	1 833 740	1 716 605
ACTIF COURANT	-	-	-	-	-
Stocks et encours	283 554	263 379	261 850	252 641	219 736
Créances et emplois assimilés	638 813	1 177 585	1 142 238	1 023 732	831 266
Clients	579 705	1 135 583	1 070 597	936 375	744 018
Autres débiteurs	48 151	42 003	65 065	65 744	64 764
Impôts et assimilés	10 957	-	6 576	21 613	22 485
Autres créances et emplois assimilés	-	-	-	-	-
Disponibilités et assimilés	264 250	75 783	10 925	40 586	19 030
Placement et autres actifs financiers courants	-	-	-	-	-
Trésorerie	264 250	75 783	10 925	40 586	19 030
TOTAL ACTIF COURANT	1 186 617	1 516 748	1 415 012	1 316 960	1 070 032
TOTAL GENERAL ACTIF	3 149 336	3 342 806	3 297 317	3 150 700	2 786 638

PASSIF	2017	2018	2019	2020	2021
CAPITAUX PROPRES					
Capital émis	1 029 060	1 029 060	1 029 060	1 029 060	1 029 060
Capital non appelé	-	-	-	-	-
Primes et réserves -Réserves consolidées (1)	320 144	325 198	338 068	338 068	338 068
Ecart de réévaluation	-	-	-	-	-
Ecart d'équivalence (1)	-	-	-	-	-
Résultat net -résultat net part du groupe (1)	50 541	139 460	17 234	- 107 216	- 166 211
Autres capitaux -Reports à nouveau	1 101 459	1 146 946	1 273 537	1 290 771	1 173 094
Ajustement resultant du passage vers le SCF	-	-	-	-	10 460
Part de la société consolidante (1)	-	-	-	-	-
Part des minoritaires (1)	-	-	-	-	-
TOTAL CAPITAUX PROPRES	2 501 204	2 640 665	2 657 899	2 550 682	2 384 472
PASSIFS NON COURANTS					
Emprunts et dettes financières	398 380	245 714	298 891	202 901	93 645
Impôts (différés et provisionnés)	16 094	1 031	626	626	634
Autres dettes non courantes	-	-	-	-	-
Provisions et produits comptabilisés d'avance	-	-	-	-	-
TOTAL PASSIFS NON COURANTS II	314 474	246 745	299 517	203 527	94 280
PASSIFS COURANTS					
Fournisseurs et comptes rattachés	233 893	326 864	192 128	211 311	143 480
Impôts	14 931	37 782	3 375	25 853	16 052
Autres dettes	84 834	87 315	69 116	89 680	61 201
Trésorerie passif	-	3 434	75 283	69 646	87 154
TOTAL PASSIFS COURANTS III	333 658	455 396	339 901	396 491	307 886
TOTAL GENERAL PASSIF	3 149 336	3 342 806	3 297 317	3 150 700	2 786 638

Appendix n°05: Income statement 2017-2021

U : KDA

COMPTE DES RESULTATS	2017	2018	2019	2020	2021
Chiffre d'affaires	1 246 521	1 567 910	816 771	714 867	361 180
Variation stocks produits finis et en cours	- 4 276	- 15 613	17 866	846	- 29 874
Production immobilisée	440	34 738	131 103	59 353	623
Subventions d'exploitation	328	37	-	-	-
PRODUCTION DE L'EXERCICE	1 243 013	1 587 072	965 740	775 065	331 929
Achats consommés	554 000	646 709	378 793	326 399	139 904
Services extérieurs et autres consommations	134 174	158 976	102 454	149 452	54 686
CONSOMMATION DE L'EXERCICE	688 174	805 685	481 247	475 851	194 590
VALEUR AJOUTEE D'EXPLOITATION	554 839	781 388	484 493	299 214	137 339
Charges de personnel	246 685	268 275	243 970	225 933	135 115
Impôts, taxes et versements assimilés	12 916	20 098	14 114	12 343	11 041
EXCEDENT BRUT D'EXPLOITATION	295 238	493 015	226 409	60 939	- 8 816
Autres produits opérationnels	2 802	10 139	10 387	3 809	2 879
Autres charges opérationnelles	21 893	40 601	34 191	10 333	8 196
Dotations aux amortissements, provisions et pertes de valeur	198 564	272 390	158 029	141 495	139 946
Reprise sur pertes de valeur et provisions	458	296	-	-	70
RESULTAT OPERATIONNEL	78 041	190 458	44 577	- 87 080	- 154 009
Produits financiers	14	-	1	-	-
Charges financières	15 255	16 106	19 812	20 392	12 211
RESULTAT FINANCIER	- 15 241	- 16 106	- 19 812	- 20 392	- 12 211
RESULTAT ORDINAIRE AVANT IMPOTS	62 800	174 352	24 766	- 107 472	- 166 220
Impôts exigibles sur résultats ordinaires	12 823	35 929	8 060	10	10
Impôts différés (Variations) sur résultats ordinaires	564	- 1 038	- 528	- 266	19
RESULTAT NET DES ACTIVITES ORDINAIRES	50 541	139 460	17 234	- 107 216	- 166 211