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The management control at the service of operational performance of the company

A comparative study between the SIM and PROMASIDOR DJAZAIR companies

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ABSTRACT

Management control is increasingly recognized for its strategic importance within modern organizations, aligning strategic and operational objectives, thereby enhancing decision-making processes and optimizing overall business performance, as indicated in the literature review. This study focuses on the impact of management control on the operational performance of Algerian companies, with particular emphasis on PROMASIDOR and SIM. Employing a qualitative methodology based on semi-structured interviews with senior executives and department heads involved in management and operational performance, complemented by documentary analysis and contextual observations, we capture stakeholders' perceptions and practices regarding management control.

The findings highlight that management control plays a crucial role in enhancing operational performance, albeit with variations in its formal application across our case studies. Key benefits identified include cost optimization, productivity improvement, and facilitation of decision-making processes. Our study enables management control leaders at PROMASIDOR and SIM to better understand their roles and responsibilities, thereby facilitating the development of new skills and approaches for increased contribution to the continuous improvement of their company's performance.

Keywords: Management Control, Operational Performance, Cost Optimization, Decision-Making, Continuous Improvement.

RÉSUMÉ

Le contrôle de gestion revêt une importance stratégique croissante dans les organisations modernes en alignant les objectifs stratégiques et opérationnels, améliorant ainsi les processus décisionnels et optimisant les performances globales des entreprises, comme indiqué dans la littérature. Notre étude se concentre sur l'impact du contrôle de gestion sur la performance opérationnelle des entreprises algériennes, en mettant particulièrement l'accent sur les entreprises PROMASIDOR et SIM. À travers une méthodologie qualitative basée sur des entretiens semi-directifs avec des cadres supérieurs et des chefs de département impliqués dans la gestion et la performance opérationnelle, complétée par des analyses documentaires et des observations contextuelles, nous capturons les perceptions et les pratiques des acteurs en matière de contrôle de gestion.

Les résultats montrent que le contrôle de gestion joue un rôle crucial dans l'amélioration de la performance opérationnelle, bien que son application formelle varie entre nos études de cas. Les principaux avantages identifiés incluent l'optimisation des coûts, l'amélioration de la productivité et la facilitation de la prise de décision.

Notre étude permet aux responsables du contrôle de gestion de PROMASIDOR et SIM de mieux appréhender leurs rôles et responsabilités, facilitant ainsi le développement de nouvelles compétences et approches pour une contribution accrue à l'amélioration continue de la performance de leur entreprise.

Mots clés : Contrôle de gestion, Performance opérationnelle, Optimisation des coûts, Prise de décision, Amélioration continue.

الملخص

يتزايد الاعتراف بالأهمية الاستراتيجية لمراقبة التسيير داخل المنظمات الحديثة، حيث تعمل على المواءمة بين الأهداف الاستراتيجية والتشغيلية، وبالتالي تعزيز عمليات صنع القرار وتحسين الأداء العام للأعمال، كما هو مبين في استعراض الأدبيات. وتركز هذه الدراسة على تأثير مراقبة التسيير على الأداء التشغيلي للشركات الجزائرية، مع التركيز بشكل خاص على بروماسيدور وشبكة إدارة المعلومات والاتصالات. وباستخدام منهجية نوعية تستند إلى مقابلات شبه منظمة مع كبار المديرين التنفيذيين ورؤساء الأقسام المعنيين بالإدارة والأداء التشغيلي، مع استكمالها بتحليل وثائقي وملاحظات سياقية، فإننا نلنقط تصورات أصحاب المصلحة وممارساتهم فيما يتعلق مراقبة التسيير.

وتسلط النتائج الضوء على أن مراقبة التسيير تلعب دورًا حاسمًا في تعزيز الأداء التشغيلي، وإن كان هناك اختلافات في تطبيقها الرسمي عبر دراسات الحالة التي أجريناها. وتشمل الفوائد الرئيسية التي تم تحديدها تحسين التكلفة وتحسين الإنتاجية وتيسير عمليات صنع القرار. وتتيح دراستنا لقادة مراقبة التسيير في شركة بروماسيدور وشركة SIM فهمًا أفضل لأدوارهم ومسؤولياتهم، مما يسهل تطوير مهارات وأساليب جديدة لزيادة المساهمة في التحسين المستمر لأداء شركاتهم.

الكلمات المفتاحية: مراقبة التسيير ، والأداء التشغيلي، وتحسين التكاليف، واتخاذ القرارات، والتحسين المستمر

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INTRODUCTION

INTRODUCTION

1. The topic's context and relevance

A key component of organizational management, management control is essential to maximizing operational performance. This sector is becoming more and more popular since companies need to know how to use control tools to increase efficiency, reduce costs, and improve decision-making. The use of management control is especially important for navigating a dynamic and competitive economic environment in the context of Algerian enterprises as PROMASIDOR DJAZAIR and SIM. the application of management control holds particular significance for navigating a dynamic and competitive economic environment.

Academic research has extensively explored various facets of management control. For instance, (Patrick Gibert & François Bernard, 1977), highlighted the importance of an integrated approach to management control in public administrations, while (François Meyssonier & Frédéric Pourtier, 2006), examined the impact of ERPs on management control practices in large corporations. These studies illustrate the diversity and evolution of management control methods over time.

2. Research goals

This study's main goal is to investigate how management control affects a company's operational performance, with a particular emphasis on the cases of SIM and PROMASIDOR DJAZAIR. This study specifically attempts to:

- **Examine how management control helps to optimize productivity:** by looking at internal operations and finding areas that could use further development.
- **Examine how management control can help reduce costs:** by automating and streamlining operations using tools like ERPs, as recommended by (François Meyssonier & Frédéric Pourtier, 2006).
- **Analyze how managers make decisions:** by applying qualitative approaches to comprehend the dynamics of decision-making, as demonstrated by (Caroline Lambert & Samuel Sponem, 2009)

- **Determine management control levers to improve the production function's efficiency:** based on (Cindy Zawadzki, 2009), research on the application of formal control systems.

3. Problem Statement

The central focus of this study revolves around examining **how management control can enhance the operational performance of a company ?**

This inquiry is subdivided into the following key questions:

- To what extent can management control facilitate productivity optimization within the company?
- How does management control significantly influence cost reduction and overhead management?
- What is the impact of management control on enhancing the decision-making process of company executives?
- In what ways can management control be utilized to enhance the efficiency of the production function within the company?

These questions are underpinned by the following hypotheses:

- Management control enhances operational performance by aligning goals and actions.
- Operational performance improves through management control's enhancement of decision-making.
- Management control contributes to operational performance by fostering learning and continuous improvement.
- Management control does not impact the operational performance of the company.
- Operational performance is improved by management control through refining company forecasts.

4. Significance of the Research

This research is significant at multiple levels:

- **Comprehensive understanding:** This study aims to better understand how management control contributes to enhancing operational performance. By identifying specific mechanisms through which management control influences performance, this research provides a clear and detailed view of its strategic role.
- **Improvement of companies' practices:** By exploring the impact of management control on operational performance, the research can help companies identify key factors influencing this impact. The findings can guide companies in implementing more effective management control practices, leading to overall performance enhancement.
- **Professional development of management controllers:** This research provides a deep understanding of the roles and responsibilities of management controllers operating within the host companies. By assimilating new skills and strategies, they can make a more significant contribution to optimizing their company's performance. Thus, this study can serve as a reference for their continuous professional development.

5. Methodology

As emphasized by (Omar Aktouf, 1987), methodology is the logical procedure of a science, encompassing all specific practices used to ensure the clarity and evidence of demonstrations and theorizations. In this study, we adopt an interpretivist abductive epistemological stance, recognizing that organizational reality is socially constructed through the subjective interpretations of the involved actors (Girod-Séville M & Perret V., 1999).

To achieve our research objectives, we opted for a qualitative approach. This method is particularly suited to explore the perceptions and experiences of senior executives and department heads at PROMASIDOR DJAZAIR and SIM. Data collection will involve semi-structured interviews, complemented by document analysis and contextual observations.

Semi-structured interviews allow for guided participation while allowing room for participants to freely express their perceptions and experiences. This method provides the necessary flexibility to deeply explore the lived realities of participants and understand how management control influences operational performance. We have developed a structured interview guide in three parts, aimed at gathering information on participant profiles, their understanding of management control, and its impact on operational performance.

Finally, data analysis will be facilitated using synthesis tables, allowing for comparison and grouping of participant responses around the research's main themes. This methodological approach ensures the rigor and credibility of the obtained results, while providing a comprehensive understanding of the specific organizational dynamics within the studied companies.

6. Outline of the Dissertation

Our current study begins with a general introduction and concludes with a general conclusion. The introduction establishes the context and objectives of the research, presents the central problem, and underscores the study's relevance. The general conclusion summarizes the main findings, offers recommendations, and proposes directions for future research that may interest students of the school.

The first chapter is dedicated to the theoretical and conceptual framework, enriched by a comprehensive literature review and a detailed explanation of concepts related to management control and operational performance. The second chapter describes the organizational and methodological framework, including the presentation of the analyzed companies and the adopted research methodology.

The third chapter presents and discusses the obtained results, offering a detailed analysis of the collected data and examining their practical implications.

This structured approach facilitates a logical progression through the document, sequentially presenting the theoretical framework, adopted methodology, obtained results, and conclusions, thereby providing a comprehensive and systematic response to the posed problem.

chapter 01

Chapter 01: theoretical and conceptual framework

Management control plays a pivotal role in contemporary business environments, where organizations strive not only to achieve operational efficiency but also to align their strategies with overarching objectives. This chapter explores the fundamental aspects of management control and its impact on company operational performance. By examining empirical studies and theoretical frameworks, we aim to elucidate how effective management control practices contribute to enhancing corporate success and sustainability.

The introduction of sophisticated management control tools and methodologies has revolutionized the way businesses operate, offering structured frameworks to monitor, evaluate, and optimize performance across various functions. From budgetary control mechanisms that facilitate financial oversight to strategic alignment frameworks like the Balanced Scorecard, these tools empower decision-makers to navigate complex challenges and capitalize on growth opportunities effectively.

Through a comprehensive review of literature and case studies, this chapter seeks to underscore the critical importance of integrating management control into organizational governance. By understanding the mechanisms through which management control influences decision-making, resource allocation, and performance evaluation, managers can better steer their organizations toward achieving long-term profitability and competitiveness in dynamic market landscapes.

Section 01: Literature review

Management control remains a central subject of research in the academic field, arousing continuous and diversified interest throughout the ages. A variety of approaches and themes have been explored by researchers, highlighting the many facets of this discipline. In this literature review, we examine a selection of relevant scientific articles, the fruit of the work of researchers and teachers, who have explored various aspects of management control in the corporate context across different historical periods.

2.1 Management control

In their publication "*Contrôle de gestion et organisations publiques*", published in the *Revue française d'administration publique* in 1977, (Patrick Gibert & François Bernard, 1977) address the issue of adapting management control systems to the specific characteristics of

public administrations. The methodology adopted includes an in-depth analysis of the organizations' missions, modes of action, impact and environment. Data was collected by examining the interactions between public organizations and their environment. The results highlight the need for an integrated approach to management control, taking into account the dimensions of effectiveness, efficiency and relevance. However, criticisms could be levelled at the complexity of this proposal and its actual implementation

The study carried out by (Nobre & Riskal, 2003), of the Robert Schuman CESAG University focuses on the impact of major political and economic changes on the management control practices of Russian companies after 1992. Data were collected through in-depth interviews with representatives of Russian companies. The results made it possible to classify companies according to the degree of evolution of their management control practices, examining in particular significant changes in key areas such as the budgeting system, planning and the production process. Despite potential criticisms concerning the limited methodology and transparency of the results, the study offers valuable insights into the adaptation of Russian companies to the major economic changes of 1992.

In their publication "*Les ERP changent-ils le contrôle de gestion?*", published in 2006 in the journal *Comptabilité Contrôle Audit*, (François Meyssonier & Frédéric Pourtier, 2006) explore the impact of ERP on management control within large companies. Their analysis focuses on the evolution of management control practices and concepts following ERP integration. The methodology adopted combines an intermediate approach between qualitative case studies and quantitative questionnaires, involving semi-structured interviews conducted within ten companies. The data collected is based on the observation of management control tools and controllers' behaviors in an ERP context. The study's findings reveal a subtle evolution in management control practices, mainly attributable to automation and the use of ERP as a data repository. Contextual factors, such as company size and organizational structure, appear to influence these developments. While there may be some criticism of the need to validate the results through more extensive surveys, the article also suggests further research to examine the diffusion of management control practices at different organizational levels.

The article "*La fonction contrôle de gestion : proposition d'une typologie*" published in December 2009 by (Caroline Lambert & Samuel Sponem, 2009), explores the diversity of management control function styles within organizations. The central issue of the study is to

understand the different roles and tasks assumed by management controllers, as well as the relationships they maintain with operational staff. To answer this question, the authors opted for a qualitative methodology, based on in-depth interviews and document analysis. In all, seventy-three interviews were conducted with management controllers and line managers in various companies. The results of the study identified four styles of management control function: discreet, gatekeeper, partner and omnipotent. However, critics could be raised regarding the limited sample size, the lack of inter-organizational comparison and the absence of multiple perspectives, underlining the need for cautious interpretation of the results.

In the article published in 2009 by (Cindy Zawadzki, 2009), the problem explored lies in the process of introducing management control, examining the transition from informal organizational control mechanisms to a formal, global control system. The central objective is to understand how this process unfolds, and the difficulties encountered. The methodology adopted combines an action-research approach with a longitudinal immersion case study. Data was collected using a variety of methods, including direct observation, formal and informal interviews, meetings, regular note-taking and debriefing, as well as deliberate distancing devices. The results reveal the failure of three attempts to implement management control, despite the application of recommendations from the literature. Resistance to change, under-utilization of management control tools and the resignation of top management were identified as major obstacles. In addition, the study highlights the importance of human factors in the appropriation of management tools. In terms of criticism, these could call into question the effectiveness of the methods used, despite the efforts made, as well as the relevance of the literature's recommendations to the obstacles encountered when implementing management control.

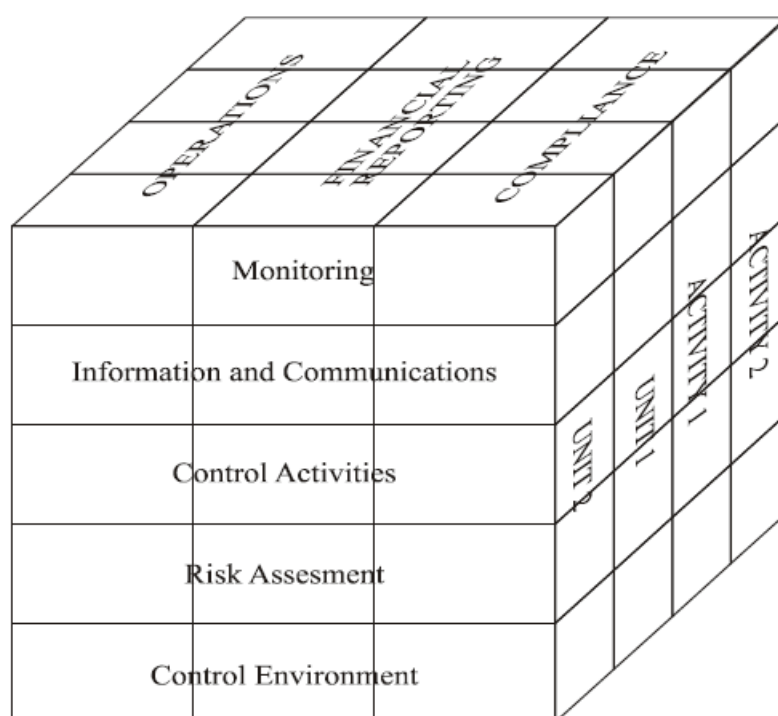
The article dated January 2013, written by (Roland Condor, 2013), explores the implementation and use of management control within small and medium-sized enterprises (SMEs). The aim is to understand how these companies adopt and exploit management control to improve their performance and competitiveness. The methodology is based on an analysis of existing literature on management control in SMEs, supplemented by case studies and interviews with SME managers to gather qualitative data and practical insights. The results underline the growing importance of management control in SMEs, while highlighting the persistent challenges associated with the resources and skills required to establish an effective management control system. The article also highlights the evolving

role of management control in these companies, outlining its advantages and limitations. However, some criticism could be levelled at the generalizability of the results, due to the predominant use of qualitative data from specific cases.

In the study entitled "Managers' participation in the management control process", written by (Mohamed Azzedine Namoun, Tahir Baala, & Soufyane Benkedidah, 2020) in 2020, the main objective is to analyze how managers contribute to management control and to identify the factors that influence their degree of participation. The methodological approach adopted is not explicitly detailed, but the article highlights several key elements, including the importance of organizational culture, the behaviors of managers and their subordinates, their perception of the role of the management controller, the communication strategies implemented, the hierarchical structuring of the management control department, and the impact of information and communication technologies. The results of this study highlight the active role played by managers in the management control process, particularly in terms of providing information and using data from the control system to guide their decisions. Three categories of determinants were identified as reinforcing managers' participation in This process.

In the article (Laurent Cappelletti, 2021) entitled "*Évolution du contrôle de gestion en France*" published in July 2021, Laurent Cappelletti examines the changes that have taken place in this field over the past three decades. The author's analysis focuses on three key aspects: risk management, improving the quality of working life, and compliance with governance standards. To conduct this study, Cappelletti adopts a socio-economic approach that combines documentary research and case studies. The findings highlight the widespread adoption of the COSO model in the wake of the financial scandals of the 2000s, the increased focus on improving quality of working life as a lever for economic performance, and the growing competence of companies in managing governance standards. However, certain critiques could be raised concerning the generalizability of the results and the possible need for additional empirical data to consolidate the validity of the conclusions.

Figure 1: COSO internal control model



Source :(Krstić & \DJor\djević, 2012)

In the article "*Importance des systèmes de contrôle de gestion dans l'entreprise économique*" published in Les Cahiers du MECAS in December 2021 by (ALI BELHADJ Yassine & NECIB Ahmed, 2021) , the issue addressed concerns the crucial role of management control in assisting the company's management mission, guiding behavior and implementing strategy. The study is based on a theoretical and conceptual analysis of management control, highlighting key concepts such as types of control, management accounting, performance drivers, and direct and indirect costs. The results highlight the importance of defining management control in relation to its purpose and the company's activity, as well as the use of management accounting to position the company in relation to its competitors. These conclusions highlight the significant impact of management control systems on the performance and effective management of economic enterprises.

2.2 Management control tools

In the study conducted by (Jihane Abi Azar, 2011), the issue addressed concerned management control practices in Lebanese SMEs. The aim was to explore objectively the control tools used, the strategic approach adopted and the control mechanisms put in place in these companies. The methodology of the study was based on individual semi-directive interviews with the owner-managers of six selected SMEs, using criteria of size and

independence. The results revealed that management control in these SMEs was often limited to control tools without a clear strategic vision, favoring intuitive and informal control. However, criticisms were raised concerning the limited size (6 companies) of the sample, the methodology based solely on interviews with managers and the reliance on qualitative data.

In the article "*Les outils du contrôle de gestion des vecteurs de valeurs pour l'organisation publique?*" (Benjamin Drevet, 2017) published in December 2017 by Benjamin Drevet in the journal "Comptabilité - Contrôle - Audit", the problematic studied concerns the role of the management tool in inscribing new values in the public organization. The study is based on a research-intervention conducted over a three-year period in partnership with a public agency, exploring the process of implementing a Balanced Scorecard. Data was collected via individual interviews, working group meetings and steering committee meetings. The results highlight the potential of management control tools to influence managerial practices, foster strategic steering of the organization and impact the vision of values within the organization. However, criticisms could be made concerning the generalizability of the results, possible biases linked to the research-intervention methodology and the scope of the conclusions in other organizational contexts.

In (Thierry Nobre, 2001) article "*Méthodes et outils du contrôle de gestion dans les PME*", the author examines the issue of management control practices in small and medium-sized enterprises (SMEs). The study, based on a survey of 86 companies, uses a methodology combining descriptive analysis and multiple correspondence analysis using SPAD software. The main variables studied include company size, sector of activity, type of production process, and management priorities. The results reveal that the budget procedure is widely used (70%), as is variance analysis (81%). In addition, the multiple correspondence analysis highlights a difference in the use of steering tools according to size and independence from a group. However, criticisms were levelled at the limited sample size and declarative nature of the data, underlining the need to confirm these results by other means of analysis.

The three articles present an exploration of management control tools, each focusing on different aspects. (Jihane Abi Azar, 2011) study sheds light on management control practices in Lebanese SMEs, revealing limited use of the tools without a clear strategic vision. In (Benjamin Drevet, 2017) article, the focus is on the impact of these tools in integrating new values within public organizations, highlighting their potential to influence managerial

practices and the vision of organizational values. Finally, (Thierry Nobre, 2001) article examines management control practices in SMEs, noting widespread use of the budget procedure and variance analysis. These studies offer a detailed insight into how management control tools are used and perceived in different contexts.

2.3 Corporate performance

In her article "*Mesure de la performance globale : quels fondements théoriques*", published in 2017, (Sanaâ Karim, 2017) explores the issue of holistic assessment of organizational performance, taking into account economic, financial, social, societal and environmental dimensions. To do so, the author draws on existing theoretical frameworks and stresses the importance of taking into account the expectations of stakeholders such as shareholders, customers, employees and the community. Although the study's methodology is not explicitly detailed, the results highlight the need to link performance criteria to observable, measurable indicators, while also highlighting the ability of some companies to maintain operations despite performance problems thanks to their legitimacy. Although the extracts provided do not mention any specific criticisms, it is worth considering the possible limitations of the study, such as biases in the selection of theoretical frameworks or shortcomings in the methodology employed.

In the article "*La performance de l'entreprise : concepts et indicateurs de mesure*" published in 2022, written by (Zehaira Boustil, 2022), the focus is on the issue of the diversity of aspects of organizational performance, moving from a unidimensional perspective to a multidimensional approach integrating societal and environmental considerations. This study is based on a methodology of exhaustive review of social science disciplines in order to enrich the understanding of performance. Data were collected through field surveys for some models, such as that of Morin et al. The results reveal the complexity inherent in the notion of performance, its diverse interpretations and the evolution of measurement criteria. However, criticism has been levelled at the conceptual nature of some of the models presented, which complicates their practical application, and highlights the lack of consensus around a common definition of performance.

In the article "*L'évolution du concept de performance de l'entreprise de 1950 à 2020*" published in 2022 by (Hanane EL Amraoui & Said Hinti, 2022) in the *Revue Française d'Economie et de Gestion*, the authors address the issue of the evolution of the concept of performance in the field of management. The study is based on a literature review aimed at

tracing the different dimensions of corporate performance over time, from financial performance to overall performance. The results highlight the complexity of defining performance, the importance of its evolution for practitioners and researchers, and the need to develop multidimensional models for a more comprehensive measurement of organizational performance. However, critics point to the article's limitations, including a methodology based solely on a literature review, a lack of critical perspectives on performance definitions, the absence of practical recommendations and the omission of current trends in corporate performance. These shortcomings highlight the need for a more in-depth and diversified approach to dealing with the complexity of the performance concept in an ever-changing environment.

2.4 The impact of management control on corporate performance

Over the last few decades, interest in the impact of management control on organizational performance has grown steadily. This trend can be seen in the vast number of research papers and articles published in the academic field:

In the article entitled "*Le contrôle de gestion entre responsabilité globale et performance économique*" published in 2007 and written by (Meyssonier & Rasolofo-Distler, 2007), the focus is on the impact of corporate social responsibility on management tools, with particular emphasis on the relationship between global responsibility and economic performance. This study adopts an action-research approach applied to a specific social enterprise, with a methodology based on internal observation, interviews, meetings and analysis of documents collected during the first year of fieldwork. The main findings highlight the growing importance of corporate social responsibility, the identification of priority strategic orientations, and the insistence on the need for contextual research to understand the link between social responsibility and economic performance.

In their September 2012 publication in the Asian Business Review, (Abdullah Al Masum & Fatema-Tuz-Johora, 2012) examined the research problem of assessing the performance of selected ceramic companies in Bangladesh. Employing a comprehensive methodology, the authors conducted an analysis of various financial ratios to gauge the financial health of these companies. The financial ratios scrutinized encompassed:

❖ **Gross Profit Margin:** Reflecting a company's production efficiency, this ratio indicates the percentage of revenue surpassing the cost of goods sold.

❖ **Operating Profit Margin:** Demonstrating the efficiency of core operations, this ratio reveals the percentage of revenue remaining after subtracting operating expenses.

❖ **Return on Assets (ROA):** Evaluating how effectively assets are utilized to generate profits, ROA is a profitability ratio.

❖ **Return on Equity (ROE):** This ratio assesses a company's profitability concerning shareholders' equity.

❖ **Net Profit Margin:** Representing the percentage of revenue translating into net income after all expenses are deducted.

❖ **Solvency Ratios:** These ratios gauge a company's capability to meet long-term financial obligations, such as the debt to total assets ratio.

❖ **Activity Ratios:** These ratios evaluate the efficiency of asset utilization to generate revenue, including inventory turnover and accounts receivable turnover.

❖ **Liquidity Ratios:** Measuring a company's ability to meet short-term obligations using current assets, common ratios include the current ratio and quick ratio.

The study's findings underscored the significance of these financial ratios in assessing the performance and financial stability of ceramic companies in Bangladesh, offering valuable insights for industry stakeholders and decision-makers.

In her study published in 2021, (Elena Roig, 2021) examined the impact of the introduction of a socio-economic management control system on company performance. The main objective was to understand how this system could positively influence organizational performance. To this end, the author adopted an approach combining qualitative and quantitative methods, analyzing 350 offices. The results highlighted the importance of managerial involvement, stakeholder skills, company size, and the management control skills of both management and the manager. The implementation of this system resulted in a reduction in hidden costs, an improvement in the margin on variable costs, and positive developments in customer relations management, strategy definition and employee management. This has contributed to a significant improvement in organizational performance within the companies examined.

The study carried out by (Tahrouch & OUAZZANI CHAHDI, 2023), entitled "*Management control and performance in Moroccan SMEs*", focuses on the adaptation of a global management control approach to optimize SME performance. Using a defining, descriptive and comparative literature review methodology, the analysis highlights the evolution of

concepts and tools dedicated to management control and SME performance. The conclusions highlight the diversity of management and organizational performance assessment practices within Moroccan SMEs, influenced by human, organizational and behavioral factors. The growing interest of Moroccan researchers in the integration of management control and dashboards in SMEs, due to the preponderance of very small and medium-sized enterprises in Morocco, is highlighted. Nevertheless, there are still gaps in the literature, particularly with regard to the use of balanced scorecards to steer the performance of Moroccan SMEs. These results underline the need for ongoing, in-depth research to better understand and improve management control and performance measurement practices, specifically in the context of SME.

In January 2023, (Lahoussine Elktiri, Ahmed Ouabbou, & Lhassane Jaouhari, 2023). Studied the issue of the impact of management control tools on financial performance within banks. Their research methodology involved a literature review, based on bibliographic searches carried out through search engines such as Google Scholar, as well as journals indexed in IMIST. The results of the study showed that management control tools have a significant impact on banks' financial performance. They facilitate effective monitoring, risk management, accurate assessment of results against forecasts, and enable informed strategic decision-making to improve overall company performance.

Careful analysis of the research articles mentioned highlights the multi-faceted and constantly evolving approaches in the field of management control and organizational performance. The study by highlights the growing momentum of corporate social responsibility and its direct impact on economic performance, underlining the imperative for in-depth research to fully grasp this dynamic. Similarly, Elena Roig's (2021) investigation demonstrates the concrete benefits of implementing a socio-economic management control system, highlighting the importance of leadership commitment and management control skills. Furthermore, Hanane EL Amraoui & Said Hinti's (2022) analysis of the evolution of the concept of performance highlights the complexity inherent in its definition, as well as the need to use multidimensional models for a comprehensive assessment. With specific reference to SMEs, the study by Tahrouch & OUAZZANI CHAHDI (2023) highlights the various practices and persistent obstacles to adapting management control to optimize performance. Finally, the study by Lahoussine Elktiri, Ahmed Ouabbou & Lhassane Jaouhari (2023) confirms the significant influence of management control tools on banks' financial performance, underlining their crucial role in monitoring, risk management and the

formulation of decision-making strategies. This collective research highlights the continuing importance of exploring and understanding the complex interactions between management control and organizational performance, providing valuable guidance for current and future practices, as well as for research in this constantly evolving field.

From a review of the above articles, it is apparent that management control has continued to captivate the interest of researchers operating in the field, particularly with regard to its influence on organizational performance. A plethora of studies has been carried out, reflecting a diversity of academic perspectives on the subject. It is this wealth of research that motivated our selection of the following research theme:

The management control at the service of operational performance of the company,

A comparative study between the SIM and PROMASIDOR DJAZAIR Companies

SECTION 02: Conceptual framework

SECTION 02: Conceptual framework

3.1 Management control

Management control is an essential aspect of strategic and operational management in modern organizations. It encompasses a set of practices and processes designed to guarantee the effectiveness and efficiency of operations, while ensuring the alignment of actions with pre-defined strategic objectives. By drawing up budgets, implementing performance measurement systems, and analyzing variances between actual results and forecasts, management control enables companies to proactively steer their business and make informed decisions.

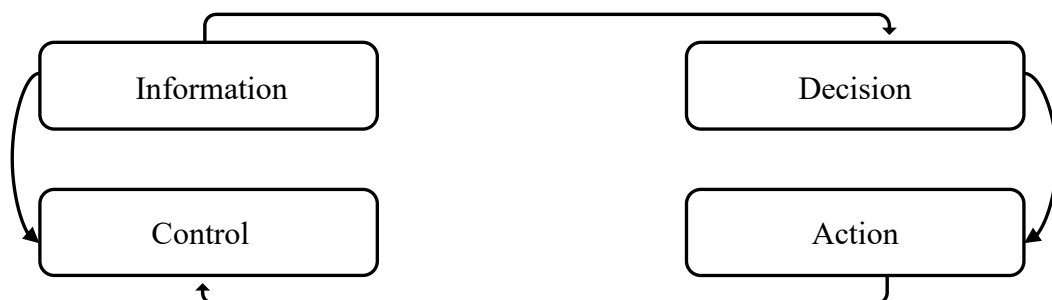
In this section, we explore the different dimensions of management control, examining its definition, its historical evolution, and the roles and missions of the management controller within contemporary organizations.

3.1.1 Definition of management control

To develop a definition of management control, we first need to examine the concept of Control. According to (Aurélien Ragainne & Caroline Tahar, 2022) in his book *Contrôle de gestion*, 2nd edition, The etymology of the concept of "control" has its roots in the fusion of the terms "contre" and "rôle", suggesting a register maintained in duplicate, each serving to verify the other (hence the idea of "contre"). This notion, initially called "counter-role" and later simplified to "control", is intrinsically linked to the idea of verification.

In the context of management, control is defined as the set of mechanisms designed to ensure that the decisions and actions envisaged are carried out in accordance with the objectives set, as part of a cyclical learning process comprising the following stages: information, decision-making, action and verification.

Figure 2 The Management Loop



Source : (Aurélien Ragainne & Caroline Tahar, 2022)

(Robert N. Anthony, 1965) The definitions of management control adopted by researchers have evolved and diversified over time. In what follows, we present the most significant definitions of management control identified by specialists.

Robert Anthony, an eminent Harvard professor, is widely recognized as one of the founding figures of the field. Through his seminal writings, he set out to define the concept of "management control" on two occasions, separated by several decades (in 1965 and again in 1988). A comparison of these two definitions highlights the evolution in the perception of management control.

In 1965, Anthony described management control as follows: Management control is the process by which managers ensure that resources are acquired and used effectively and efficiently to achieve the organization's objectives. (Robert N. Anthony, 1965), This early definition emphasized the correlation between managers' actions and the organizational objectives to be achieved. It underlined that management control was intended to rationalize the relationship between resources consumed and objectives achieved, with the aim of minimizing the waste of resources.

In 1988, the proposed definition focused more on a strategic dimension: "Management control is the process by which managers influence other members of the organization to implement the organization's strategies". (Robert N. Anthony, 1988)

This second definition emphasized the role of management control in strategy implementation. It emphasized that management control is not limited to simply checking the effectiveness and efficiency of resource utilization, but constitutes a set of tools designed to guide managerial behavior in order to implement the strategy defined by the company's top management.

Management control therefore represents an essential process enabling managers to ensure consistency between strategic decisions and day-to-day operations. It facilitates the link between the company's global strategy and the operational activities of its various departments.

(Ève Chiapello, 1996) offers a synthesis of control mechanisms, defining control as any influence aimed at establishing a certain regularity. From this perspective, control arises when an individual's behavior is shaped by external influences. Its primary objective is to direct the actions of the concerned individual by limiting his or her degree of autonomy.

According to (Francis Grandguillot & Béatrice Grandguillot, 2018), Management control is defined as the management of corporate performance. Its main aim is to achieve the objectives set by the company according to a pre-established strategy, while seeking to optimize the use of resources. Regular assessment of variances between actuals and forecasts enables corrective action to be taken and unforeseen changes to be adapted to. In this way, controlling plays a crucial role as a decision-making tool.

In "*Le grand livre de contrôle de gestion*", (Marie-Noëlle Desiré-Luciani, Daniel Hirsch, & Nathalie Kacher, 2013) the authors defined management control as the constant verification that the organization is progressing in the direction of the objectives defined by its directors, while ensuring effective and efficient use of resources.

It is observed that the terms "efficiency" and "effectiveness" appear frequently in different definitions of management control. Therefore, we will define them below:

The Anglo-Saxons have an ingenious way of differentiating the two concepts: effectiveness is defined as: to do the right thing, while efficiency is described as: to do the thing right.

According to « dictionnaire de gestion » (*Dictionnaire de gestion (2e édition) - Collectif - FOUCHER - Grand format - Librairie Martelle AMIENS*, 2004):

- **Effectiveness:** is the ability to achieve set objectives, to obtain expected results. It measures the achievement of goals.
- **Efficiency:** is the ability to minimize the use of resources to obtain a given level of production of goods or services. It is the relationship between the results obtained and the resources used to achieve them.

In conclusion, management control emerges as a dynamic process, aimed at ensuring consistency between strategic objectives and day-to-day operations, while adapting to changes in the economic and organizational context. It is thus an essential tool for decision making and the overall performance of modern companies.

3.1.2 History of management control, different approaches of management control

The history of management control spans the entire twentieth century, marked by a series of significant developments and challenges from the 1980s onwards. Various institutional factors contribute to explaining this trajectory and revealing its implications.

Management control, as a twentieth-century managerial practice, can be divided into three distinct periods since the end of the nineteenth century (Nicolas Berland & François-Xavier Simon, 2010)

Firstly, from the end of the 19th century onwards, costing developed within companies in response to increased competition, which required more precise costing methods. This period saw the emergence of costing techniques and management approaches based on variance management, such as standard costs and direct costing, imported from the United States after the Second World War. The first experiments in budgeting and budgetary control also appeared in the thirties, and became more widespread in the following decades. However, it wasn't until the 1950s that these practices reached a wider range of companies, accompanied by the development of the first dashboards incorporating operational data. It should be noted that these techniques emerged before the formal emergence of the function of management controller, which gained importance in the sixties alongside structured teaching on the subject.

The 1980s marked a turning point in the history of management control, characterized by the increasing computerization of companies and the emergence of new technological tools such as automated information systems and ERP. These developments have considerably altered the role of the controller, who is freed from certain tasks thanks to the automation of processes. This transition is also perceptible in the successive definitions of management control given by eminent figures such as Robert Anthony. Whereas in the 1960s, management control was seen primarily as a process for verifying resources, in the 1980s it evolved into a steering process aimed at influencing members of the organization to implement corporate strategies. These changes led to an intensification of criticism and questioning of management control from the eighties onwards, with major works questioning its foundations.

The 1990s and 2000s were marked by a profusion of innovative proposals aimed at rethinking traditional control practices, notably through the development of ABC/ABM, EVA, BSC and no-budget management.

In short, the history of management control highlights three major players: the manager, the controller and the controlled, whose roles and interactions have evolved over time. The continuous questioning of traditional practices and the adaptation to new technological and organizational challenges continue to shape the evolution of this discipline, which is essential to the strategic management of companies.

The different approaches to management control, as described by (Henri Bouquin, 2010) include six key perspectives:

3.1.2.1 Traditional approach:

Focuses on financial control, budgeting, costing and variances between actual and planned performance.

3.1.2.2 Behavioral approach:

Recognizes the importance of human factors in management control, studying how individuals react to control systems, how incentives influence their behavior, and how control can be used to motivate employees.

3.1.2.3 Systems approach:

Considers the organization as a whole and examines how management control interacts with other aspects of the business, such as organizational structure, corporate culture and operational processes.

3.1.2.4 Strategic approach:

emphasizes the role of controlling in achieving the company's strategic objectives, seeking to align operational objectives with the company's overall strategy, and to evaluate performance in the light of these objectives.

3.1.2.5 Value Creation Approach:

Focuses on maximizing shareholder value, using metrics such as Economic Value Added (EVA) to assess company performance, and guiding management decisions towards long-term value creation.

3.1.2.6 process-oriented approach:

focuses on optimizing the company's internal processes, with the aim of improving the effectiveness and efficiency of operational processes through continuous monitoring and control.

3.1.3 Management controller roles and missions

Before discussing the role and missions of the management controller, we will first explain the management control function.

3.1.3.1 The management control function

The controlling function is a fundamental pillar within any company, facilitating both strategic planning and the evaluation of project implementation. Divided into two main components: planning and control

This function enables senior management to define the company's future orientations, while ensuring rigorous monitoring of their implementation (Romain Appercel, 2022).

A) The planning stage

The first crucial stage involves the clear and precise establishment of company objectives, followed by their communication to all employees. Through the formalization of detailed budgets, companies articulate their development plans, anticipating future needs in terms of human and material resources. For example, in the case of a consulting firm, planning takes the form of drawing up a budget detailing the working hours required for each consulting service to be provided to its customers. This process not only makes it possible to forecast staffing needs, but also to effectively communicate these needs to all stakeholders (Romain Appercel, 2022)

B) Controlling

At the same time, control is used to evaluate the implementation of established plans. By comparing actual results with initial projections, this function measures the performance of employees, departments and even the company as a whole. Taking the example of the consulting firm, once the consulting services have been carried out, the hours actually worked are compared with the budgeted hours, providing a precise assessment of operational efficiency. The conclusions of this analysis often feed into recommendations aimed at optimizing processes and achieving objectives more effectively (Romain Appercel, 2022).

In short, planning and control are essential pillars of any modern company, enabling proactive and effective management. While planning lays the foundations for future action, control ensures continuous monitoring, guaranteeing that performance is aligned with the company's strategic objectives.

3.1.3.2 The role of the management controller

According to (Christophe Chauvet, 2022), in his book “ *Le contrôle de gestion... mais c'est très simple!* ” The role of the management controller within an organization is closely linked to his/her position in the organizational structure and to the missions entrusted to him/her. This position often depends on the size of the company and the contingent elements that characterize it, according to the theories of Henry Mintzberg.

In simple structures and mechanical bureaucracies, the management controller focuses primarily on cost control, ensuring compliance with standardized processes. He or she calculates and enforces compliance with established standards.

In more complex structures, such as professional bureaucracies or adhocracies, the management controller adopts a budgetary approach, aiming to optimally allocate resources while taking into account the financial constraints and objectives of each department. Their role is to draw up precise budgets.

Finally, in large, divisionalized companies, the management controller helps to optimize overall performance by creating profit centers and calculating internal transfer prices between the various divisions.

The role of management control within an organization is also influenced by the company's overall strategy, particularly with regard to the dichotomy between the objectives of managers and owners.

In this context, the management controller can act as an agent of control over management by the owners, ensuring that decisions taken do not sacrifice the company's long-term viability for short-term gains.

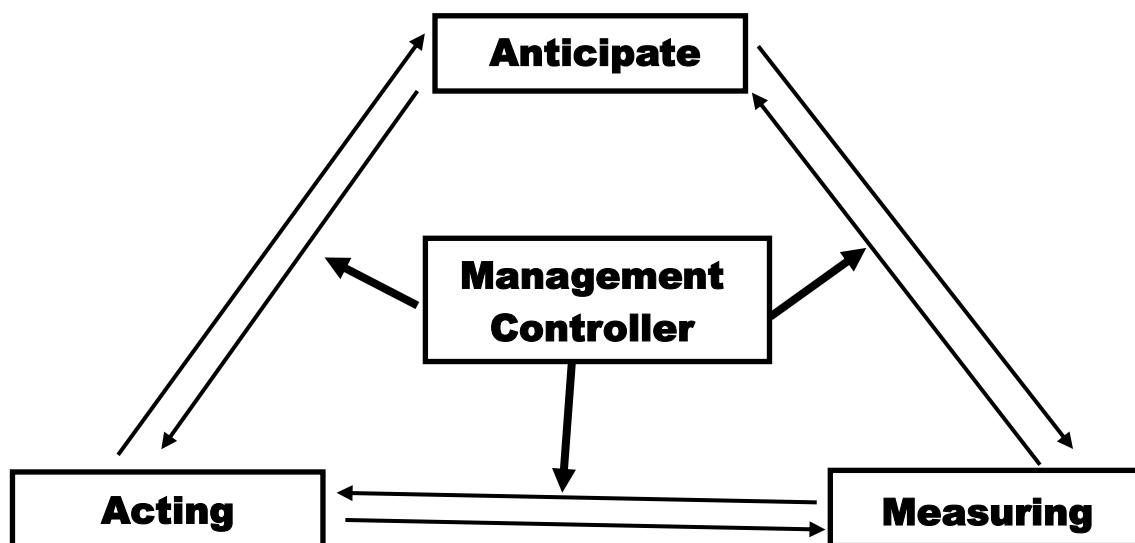
To conclude, the role of the management controller is an evolving one, adaptable to the specific needs of each organization. Whether monitoring costs, optimizing resource allocation or helping to achieve long-term objectives, the management controller remains a

key player in strategic decision-making, using the past to understand the present and best anticipate the company's future.

3.1.3.3 Management controller missions

According to (Marie-Noëlle Desiré-Luciani et al., 2013), Management controllers occupy an essential position as the main contributors to the management control function, acting as key levers in the supervision and direction of corporate activities. Their primary responsibility is to actively participate in the monitoring and control of company operations, ensuring effective performance and process management. At the same time, they provide invaluable support in achieving the objectives set by the company, offering strategic expertise to guide initiatives and projects. Through their intervention at the three fundamental levels of the management tripole “anticipate, measure, act” they make a significant contribution to the overall management of the organization to which they are attached.

Figure 3 The three levels of the management tripole



Developed by us according to : Source : (Marie-Noëlle Desiré-Luciani et al., 2013)

The effectiveness of management controller's rests primarily on the quality of the links between these three actions (Act, Measure, Predict). This is at the very heart of the controller's mission: to establish a connection between measuring action, facilitating forecasting and promoting it.

A) The responsibilities of the management controller: The responsibilities entrusted to management controllers vary from company to company. Here is a non-exhaustive list of these responsibilities (Marie-Noëlle Desiré-Luciani et al., 2013):

❖ **Activity reporting:**

- Train operational staff in the preparation of activity reports.
- Prepare or check the reliability of reports.
- Analyze and comment on reporting data, or help operational staff to do so.
- Distribute reports.
- Monitor the results of actions undertaken through reporting data.
- Help operational staff use reporting as a steering and decision-making tool.
- Use reporting as a tool for information sharing, management dialogue and change management.

❖ **Budget, plan and forecasts:**

- Assist general management in choosing budget assumptions;
- Gather historical data and market forecasts;
- Help operational staff provide data for the budget matrix;
- Consolidate budget data;
- Check overall budget consistency against objectives and between individual budgets;
- Help operational staff quantify the results expected from their actions;
- Assist general management and operational staff in determining priority actions to be taken;
- Participate in the presentation and distribution of the budget.

❖ **Costs and margins:**

- Help determine sales prices.

- Calculate costs and margins, as well as project and standard costs.
- Help choose costing assumptions.
- Help decide which products to promote for sale.
- Help to choose allocation keys for indirect costs.
- Calculate break-even points for products or product ranges.
- Evaluate the sensitivity of costs and margins to certain factors, such as currency fluctuations or raw material prices.
- Analyze cost variances in relation to historical data or forecasts.

❖ **Specific studies and processes:**

- Help make decisions and take action based on the results of specific studies.
- Develop tests and simulations of process changes and make proposals.
- Propose corrective actions.
- Carry out internal or external comparative studies.
- Participate in information system changes or parameterization.
- Participate in business divestment or takeover projects.

B) The role of the management controller: According to (Zouhair Djerbi, Xavier Durand, & Catherine Kuszla, 2020), In the professional field of management controllers, these experts, commonly referred to as "controllers", are entrusted with a variety of crucial missions that are at the heart of their responsibilities and aim to ensure the smooth running and overall performance of the company. These missions include:

❖ **Mission of Steering:** This mission involves ensuring the alignment of results with the company's strategic objectives. Controllers ensure the coherence of long, medium and short-term planning and monitoring cycles. For example, they ensure that the allocation of resources in the annual budget is in line with long-term strategic projects. In addition, they are responsible for organizing responsiveness by triggering corrective action when inconsistencies are detected, in order to realign objectives or reduce risks.

❖ **Expertise mission:** This mission requires management controllers to develop an in-depth understanding of the company's economic and financial model. Their expertise extends to mastering control tools, training managers in the control systems and processes

used, and communicating their analyses and diagnoses to the managers concerned. They also act as facilitators of decision-making and action processes.

❖ **Operational mission:** In addition to the above missions, management controllers are responsible for the production and material organization of communication and animation. They must meet strict deadlines and provide reliable and relevant information, adapted to the company's strategic evolutions. This mission often involves managing peaks in activity and taking on essential tasks that are difficult to compress. In addition, they play a crucial role as consolidators of information from different corporate functions, requiring interpersonal and pedagogical skills as well as professional legitimacy with other members of the organization.

According to the work of the “Observatoire international du contrôle interne et de l'audit des risques,” (Doche et al., 2013) as well as the animation of management control processes, a management controller assumes nine main tasks, which he divides up more or less according to operational needs (figure 4):

C) Management controller's tasks

- Production of reports and dashboards
- Drawing up plans and budgets
- variance analysis
- forecasting and re-forecasting
- Ensuring planning and coordination activities with operational staff
- Cost analysis
- development of information systems
- Internal control and risk audit
- Coordination of the steering and internal control processes in collaboration with operational staff.

Although the production of reports and dashboards remains a time-consuming task, it currently seems to be giving way to planning and coordination activities with operational staff.

Figure 4 : Practical activities of the management controller



Source : (Doche et al., 2013)

In conclusion, management control represents a fundamental pillar within any company, enabling both strategic planning and evaluation of project implementation. Planning, which involves clearly defining the company's objectives and formalizing detailed budgets, anticipates future resource requirements and effectively communicates these needs to all stakeholders. At the same time, controlling evaluates the implementation of established plans by comparing actual results with initial projections, thus enabling performance to be measured and areas for optimization to be identified.

The role of the management controller is closely linked to the management control function, and varies according to the size and structure of the company. He or she may focus on cost control in simple structures, adopt a budgetary approach in complex structures, or contribute to optimizing overall performance in large, divisionalized companies.

The management controller's missions are many and crucial to ensuring the smooth running and overall performance of the company. They include producing reports and dashboards, drawing up plans and budgets, analyzing variances, developing information systems, and coordinating steering and internal control processes in collaboration with operational staff.

In conclusion, management control and the role of the management controller are scalable and adaptable to the specific needs of each organization, making a significant contribution to strategic decision-making and proactive, efficient company management.

3.1.4 Management control tools

In this section, we'll explore various management control tools that are essential for steering a company's activities. These tools make it possible not only to monitor financial and operational performance, but also to implement corrective actions and optimize internal processes. We will examine budgetary control, general accounting, cost accounting, dashboards (strategic and operational), reporting, and finally ERP (Enterprise Resource Planning) systems.

3.1.4.1 Budgetary control

Michel Gervais (Claude Alazard & Sabine Sépari, 2010), defines budgetary control as "the ongoing comparison of actual results with budget forecasts, in order to identify the causes of discrepancies, inform the various hierarchical levels, take any necessary corrective action, and assess the activity of budget managers".

Budgetary control plays an essential role in enabling the analysis of discrepancies between forecasts and actual results, and the implementation of appropriate corrective measures. This analysis is carried out at activity manager level, in order to assess the achievement of the objectives assigned to them.

In the event of deviations, it is essential to encourage the manager to take corrective action.

These deviations can have a variety of origins, whether external (such as fluctuations in raw material prices or climatic disturbances) or internal (such as waste, stoppages due to maintenance or breakdown, or social conflicts within the company).

However, it is crucial to understand the causes of these deviations in depth, so that they can be remedied quickly and effectively. Gap analysis thus represents a learning opportunity for improving processes and performance.

Budgetary control is not simply a matter of managing budgets; it is also an essential verification tool for assessing the performance of the various responsibility centers within an organization (Philippe Lardy & Benoît Pigé, 2011) .

3.1.4.2 General accounting

According to article 121-1 of the French General Accounting Plan¹ (Plan Comptable Général - PCG), general accounting is described as a system for organizing financial information by capturing, classifying and recording basic numerical data. Its objective is to present statements that give a true and fair view of the entity's assets, financial position and results at the balance sheet date.

Accounting is commonly defined as a system for organizing financial information with the aim of capturing, classifying and recording numerical data, then providing, after appropriate processing, a set of information meeting the needs of the various users concerned. To guarantee the quality and comprehensibility of information, all accounting requires the respect of principles, an organization meeting various requirements such as collection, keeping, control, presentation, communication and verification, as well as the implementation of methods and procedures, using a common terminology.

The purpose of general accounting is twofold: to measure results and to evaluate assets and financial position. Accounting is the company's memory, essential to its smooth operation. To this end, it is based on a set of rules codified in a frame of reference applicable in a given geographical area and for a given period (ibrahima camara, 2017).

3.1.4.3 Analytical accounting

Cost accounting is a management tool designed to monitor and analyze a company's internal flows, thus providing essential information for management decision-making. Unlike general accounting, cost accounting is not subject to the formal constraints of a standardized framework. Although it is not mandatory, it is an integral part of the company's management information system (Isabelle Andernack, Philippe Baruch, & Gérard Melyon, 2018) .

3.1.4.4 The dashboard

A management dashboard is a grouping of essential synthetic indicators needed by the manager of an entity (company, organization, association, operational unit, etc.) to effectively steer its activities. This tool is thus a short-term decision-making tool, providing

¹ ("L'Art. 121-1 Du Plan Comptable Général Pdf - Recherche Google," 2023)

both strategic orientation and operational steering resources (Zouhair Djerbi et al., 2020, p. 268) .

❖ **The strategic dashboard**

The strategic dashboard is designed to provide managers with the information they need to carry out a complete diagnosis of the organization and make enlightened strategic decisions. It includes elements such as strategic analysis of the product portfolio, monitoring of financial balances, status of operational plans, monitoring of major processes and analysis of changes in the environment (Zouhair Djerbi et al., 2020, p. 270) .

❖ **The operational dashboard**

The operational dashboard is a structured set of selected information and data, designed to provide the manager with an overall view of his activity. Its role is to rapidly detect any deviations from objectives, and to enable appropriate decisions to be taken to align actions with the company's strategic objectives. The indicators used are generally expressed in terms of cost, lead time and quality, including quality levels, inventory levels, productivity, flexibility of resources and staff efficiency. The operational dashboard is thus an essential tool for decentralizing responsibilities (Zouhair Djerbi et al., 2020, p. 271) .

3.1.4.5 Reporting

Management reporting is an instrument for the retroactive control of managers' responsibilities. Its main purpose is to check the achievement of the objectives assigned to them. It therefore focuses on assessing managers' performance, rather than on supporting them in managing their entity.

However, in addition to monitoring the performance of subordinates, reporting provides an overview of achievements through aggregated information including key objectives, highlights of the period, income statements, balance sheets, progress on action plans, etc. This overview meets the company's needs in the area of management reporting. This overview meets the periodic needs of financial analysts and investors. In addition, reporting makes it possible to standardize and disseminate a common language between the various units of a group, even if they are geographically dispersed or have different activities. This requires close collaboration between the central management controller and operational

staff, in order to understand their specific businesses and needs (Zouhair Djerbi et al., 2020, p. 269).

3.1.4.6 Enterprise Resource Planning (ERP)

ERP, or Enterprise Resource Planning, represents the integration of a company's main management functions within a single IT system. This system enables the automatic circulation of information, synchronized or asynchronous as required, triggering the necessary processing at the right moment. ERP encompasses the entire supply chain through a single database, replacing the multiple traditional databases used for logistics and sales, such as forecasts, planning and orders (Wilfrid Azan, 2002, p. 13).

An ERP, or integrated software package, is characterized by several essential aspects: the management of several areas of the company by integrated modules or software packages promoting process collaboration, the existence of a single data repository defined as all references and modifications required to retrieve data, rapid adaptation to professional, legal or internal operating rules, unified administration of application subsystems, standardization of man-machine interfaces, and the availability of tools for developing or customizing add-ons (Wilfrid Azan, 2002, p. 13).

ERPs are software packages designed to manage all company resources, via modularity integrated into a client-server or Internet architecture. This software offering includes a range of modules adapted to different business sectors, enabling management of customer relations, project planning, logistics, financial management, human resources, etc. The main objective of an ERP is to optimize information flows by facilitating transactions between users (Wilfrid Azan, 2002, p. 13).

The term ERP, meaning "Enterprise Resource Planning", refers to a computer application enabling a company to manage and optimize all its resources (Jean-Luc Deixonne, 2011).

3.2 Company performance

The notion of corporate performance is constantly evolving to reflect the changing challenges and expectations of the business world. At the heart of this evolution are different interpretations of the concept, each offering a unique perspective. What follows explores the various dimensions of organizational performance, from its traditional definition to its global, integrated vision.

3.2.1 Definition of performance

The concept of performance has given rise to a multitude of interpretations over time, each offering a particular take on the subject.

According to Anthony (Robert N. Anthony, 1965), performance is divided into two main elements: efficiency and effectiveness, with financial results as the main indicator.

3.2.1.1 Performance: synonymous with productivity and efficiency

In the 50s and 60s, many authors considered performance to be the combination of productivity and efficiency. This is evident in the following definitions:

- Georgopoulos and Tannenbaum (1957): They define performance as organizational efficiency, measuring the extent to which an organization achieves its objectives without requiring excessive effort from its members. Their criteria include productivity, flexibility and inter-organizational tensions (Basil S. Georgopoulos & Arnold S. Tannenbaum, 1957)
- Yachtman and Seashore (1967): They describe performance as an organization's ability to exploit its environment and limited resources to fulfill its primary function. Their criteria include production indicators, productivity, growth, effective management and market penetration (Ephraim Yachtman & Stanley E. Seashore, 1967)
- Mahoney and Weitzel (1969): They define performance as effective and productive action, and propose evaluation criteria such as productivity, planning, trust, initiative, development, cooperation and staff quality (Thomas A. Mahoney & William Weitzel, 1969)
- Katz and Kahn (1966): They see organizational performance as the maximization of the income an organization can generate effectively and efficiently, economically, technically and politically. Their criteria include growth, storage, survival and environmental control (Daniel Katz & R.L. Kahn, 1966)
- (David C. Klein & Martin E. Seligman, 1976): associates performance with organizational effectiveness, considering criteria such as productivity, compliance, ethics, flexibility and institutionalization as indicators of performance (James L. Price, 1972)

3.2.1.2 Definitions based on a company's level of productivity and efficiency

In the 1970s, a diversification of approaches to assessing organizational performance emerged, leading to an expansion of existing definitions:

- Knema Khem (1971): He sees performance measurement as a control technique designed to ensure that achievements in different responsibility centers comply with established rules, and to apply sanctions in the event of significant deviation (Abdellatif Khemakhem, 1971).
- Shashi and Goldschmidt (1974): question the company's financial performance model, using criteria such as profit margin, return on equity, return on capital, operating capital ratio, all business and financial indicators(L. Shashua & Y. Goldschmidt, 1974)
- Negandhi and Reiman (1973): They establish five performance evaluation criteria, including recruitment of new employees, employee satisfaction, coordination between departments, manpower utilization, and increase in sales and net profit (Anant R. Negandhi & Bernard C. Reimann, 1973).
- Klein (1976): He sees performance as a subjective notion, based on six indicators including value added, return on capital employed, growth in intangible assets, change in assets, working capital coverage and cash flow debt. (David C. Klein & Martin E. Seligman, 1976)

3.2.1.3 Definitions based on goal attainment

In the 90s, various authors stressed that performance is intrinsically linked to the achievement of objectives, and becomes multidimensional when these objectives are multiple:

- Brown and Laverick (1994): They describe performance as the reflection of decisions taken in relation to strategic objectives, stressing that performance evaluation enables companies to assess the effectiveness of their decision-making processes (D.Michael Brown & Stuart Laverick, 1994)
- Lorino (1997): He defines corporate performance as everything that contributes to achieving strategic objectives, emphasizing the importance of aligning actions with these objectives (Philippe Lorino, 1997).
- Noyer (2000): He sees performance as the achievement of objectives set in line with corporate orientations, emphasizing that performance goes beyond mere production and

results from a comparison between results obtained and objectives defined (Didier Noyé, 2002).

- Bourguignon (1995): He associates performance with the degree to which objectives are achieved, emphasizing that the achievement of these objectives determines the effectiveness of an organization (Annick Bourguignon, 1995).

3.2.1.4 Definitions of performance based on customer value creation

Creating shareholder value through efficiency and productivity is crucial, but a company's performance is not limited to cost control; quality and deadlines are also essential to maintaining constant competitiveness (Véronique Malleret, 2009) .

Performance should also focus on creating value for other stakeholders such as customers, employees, suppliers and communities (Bourguignon, 2005).

Since then, the notion of value has gained in importance in the search for performance, and several authors place value creation at the heart of their definitions of performance:

- Porter (1986): He asserts that a company's performance depends on its ability to create value for its customers (Michael E. Porter, 1986).

- Lorino (1995: 2001): He sees performance as the net creation of wealth, resulting from the ratio between the value of resources used and the value of services obtained, thus emphasizing the importance of economic value in measuring performance (Philippe Lorino, 1995) (Philippe Lorino, 2001).

- Lebas and Mévellec (1999): They argue that the *raison d'être* of any organization is the creation of value, seeking to improve the relationship between performance management and value creation (Michel Lebas & Pierre Mevellec, 1999).

- McNair et al. (2001): They emphasize that understanding the relationship between company costs and the value delivered to customers is crucial to achieving performance, highlighting the importance of the relationship between the cost of value added and revenues when assessing a company's performance (C. J. McNair, Lidija Polutnik, & Riccardo Silvi, 2001).

3.2.1.5 Performance definitions based on the global vision of performance

The concept of performance has evolved towards a more global perspective, marked by the need for companies to account for their societal responsibilities to various stakeholders (Christophe Maurel & Mouloud Tensaout, 2014).

This evolution has led to an assessment of overall performance, integrating not only financial and customer dimensions, but also dimensions of internal processes and organizational learning (Robert S Kaplan & David P Norton, 1992).

Several authors have contributed to this broader vision of performance:

- Elkington (1997): He proposes to evaluate performance through the Triple Bottom Line, integrating a triple contribution to economic prosperity, environmental quality and improved social cohesion (Elkington, J, 1997).
- Baret (2006): He sees global performance as the aggregation of economic, social and environmental performance (Pierre Baret, 2006).
- Werther and Chandler (2010): They consider Corporate Social Responsibility to be a rational argument for companies wishing to maximize their performance, offering a means of anticipating societal concerns in order to minimize operational and financial constraints. They also note that companies with significant employee shareholding achieve better results in terms of productivity, profit margins and return on equity (William B. Werther Jr & David Chandler, 2010) .
- Maurel and Tensaout (2014): They consider global performance as a multidimensional construct, combining economic, financial, social and societal-environmental aspects based on stakeholder and resource theories ressources (Christophe Maurel & Mouloud Tensaout, 2014) .

The concept of performance has evolved over the decades, from an initial definition focused on productivity and efficiency to a more holistic vision that takes into account financial, social, environmental and stakeholder value creation dimensions. This evolution reflects the growing need for companies to consider their global impact while pursuing their operational objectives. Thus, an integrated approach to performance, encompassing various economic, social and environmental aspects, is becoming indispensable for a comprehensive assessment of organizational success.

3.2.2 Company performance typologies

A company's performance is generally analyzed across three main dimensions: strategic performance, competitive performance and socio-economic performance.

❖ **Strategic performance**, also known as long-term performance, is measured by a system of excellence. Key elements in achieving this performance include business growth, a well-developed strategy, high motivation within the organization, the ability to create value for customers, management and product quality, environmental management, and commitment to corporate social responsibility. These factors maintain a competitive distance from competitors and ensure the company's sustainability.

❖ **Competitive performance**: refers to the success derived from a company's ability to adapt to the competitive rules of its industry. This performance depends on the type and intensity of competition. To seize performance opportunities, companies need to detect evolutions in the competitive landscape, anticipate changes and adopt appropriate competitive strategies.

❖ **Socio-economic performance**: encompasses organizational, social, economic and financial performance, as well as business performance.

❖ **Organizational performance**: assesses the effectiveness of the organizational structure, including adherence to formal structure, internal relations, information flow, flexibility and leadership influence.

❖ **Social performance**: focuses on human relations within the company, measured by the nature of social relations, conflicts, employee satisfaction, turnover, absenteeism, participation in decision-making and skill levels.

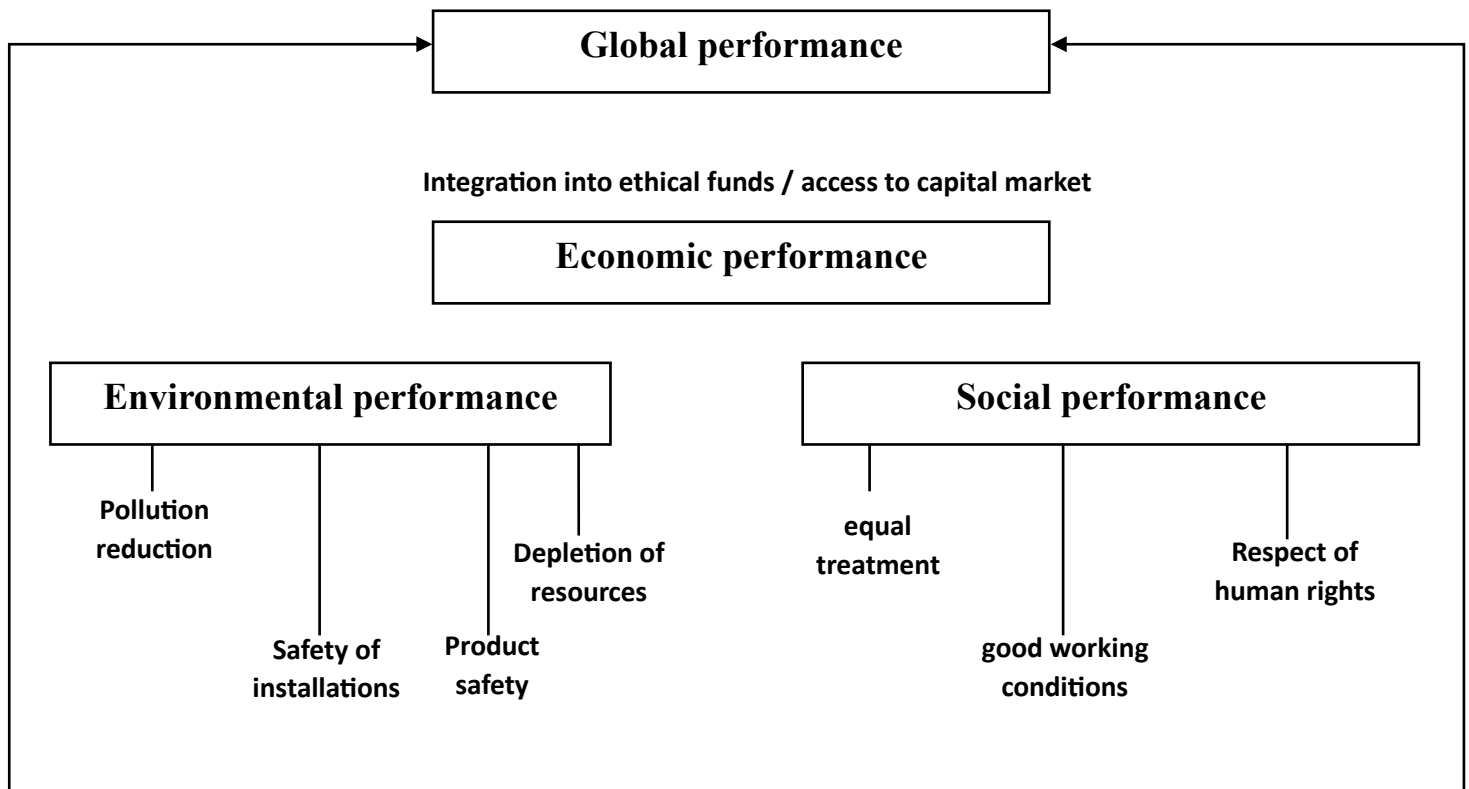
❖ **Economic and financial performance** : is defined by the company's ability to achieve its objectives, measured by quantitative indicators such as profitability, costs, profitability and productivity (Ennesraoui Driss, 2017).

❖ **Economic performance** : refers to a company's ability to create added value through its activity (Champagne, C. Vallée, A. Krief, N., 2021)

Environmental performance it represents an organization's ability to control its impact on the natural environment throughout its activity cycle, from the sourcing of raw materials to the final disposal of waste (Bon, V & Hom, P., 2020).

Environmental performance can be defined as the assessment of the compliance of a company's activities with current environmental laws, as well as their commitment to innovative eco-responsible practices. (Dibrell, C, Craig, J., & Hansen, E, 2015)

Figure 5 : Global performance components



Developed by us according to , Source :(Emmanuelle Reynaud, 2003)

❖ **Sales performance**, also known as marketing performance, is linked to customer satisfaction, measured by quantitative criteria such as market share and sales. Similarly, qualitative indicators such as innovation, customer satisfaction and loyalty, as well as the company's reputation, are also taken into account (Ennesraoui Driss, 2017).

❖ **Financial performance:** represents the company's ability to generate profits and cash flow from its activities, while maintaining a healthy financial structure (Vernimmen, P, Le Fur, Y., Brilman, M, Batsch, L., & Salva, A., n.d.).

❖ **Operational performance:** This measures the efficiency of production processes and the supply of goods or services. It integrates dimensions such as quality, costs, lead times and customer satisfaction (Grimaud, E., Lafarie, J.P., & Petavy, F., 2019).

❖ **Operational performance :** refers to the effectiveness and efficiency of input-to-output processes within an organization (Jacobs, F.R. & Chase, R.B, 2018).

❖ **Operational performance:** includes all activities involved in the production of goods and services, from operations management to final distribution (Heizer, J, Render, B, & Munson, C., 2017).

❖ **Operational performance:** represents the achievement of production objectives in terms of costs, deadlines, quality and respect for the environment (Pillet, M, Pralits, J.O, Pringent, R., & Uny, D, 2019).

3.2.3 Performance measurement indicators

In what follows, we will identify performance indicators in relation to the 3 types of performance: strategic performance, financial performance and operational performance.

3.2.3.1 Indicators for measuring corporate financial performance

In the following part, we'll begin by exploring the different indicators used to measure a company's financial performance.

A) The company's accounting result: Among the available indicators, the company's accounting result, as recorded in its official financial statements, stands out as the most accessible. By structuring the income statement into intermediate management balances, a more in-depth analysis can be carried out. In particular, this approach makes it possible to distinguish the company's operating income from financial and exceptional items, thus offering a perspective more aligned with the organization's recurring activity and core business than simple net income. (Françoise Giraud, 2004)

In addition, it can be used to derive business indicators such as sales, sales margin and production for the year, as well as profitability indicators including operating, financial and exceptional results, EBITDA and pre-tax profit on ordinary activities. These margin and profitability indicators provide an assessment of the company's ability to generate profits and to compete consistently in the market, based on its production processes and costs.

However, the exclusive use of accounting data has its limitations, not least because of their absolute nature. For example, a direct comparison of operating results between two companies may prove irrelevant due to the non-comparability of the figures. As a result, an approach that favors ratios and relative quantities is emerging, such as the profitability rate, which expresses the relationship between operating income and sales (or production for the year), or ratios relating financial or personnel costs to sales. This perspective emphasizes the

structure of results rather than gross figures, thus providing a more solid basis for comparison (Françoise Giraud, 2004).

B) Intermediate management balances: Analysis using intermediate management balances enables us to distinguish the company's operating result from financial and exceptional items, thus offering a perspective aligned with the organization's recurring activity.

Here are a few examples of the intermediate balances of management:

❖ **Operating result:** provides an overview of the profitability generated by the company's day-to-day activities. A negative result emerges when expenses exceed revenues. For this reason, it is important to take a close look at excessive expenses in relation to sales (Claire-Agnès Gueutin, 2022).

Financial result: This is intrinsically linked to the company's debt footprint and cash management. Financial income reflects the gains from the company's financial investments, which depend on its investment choices, while financial expenses include interest on loans taken out with banks, linked to the company's level of indebtedness. A high level of debt leads to a negative financial result. (Claire-Agnès Gueutin, 2022)

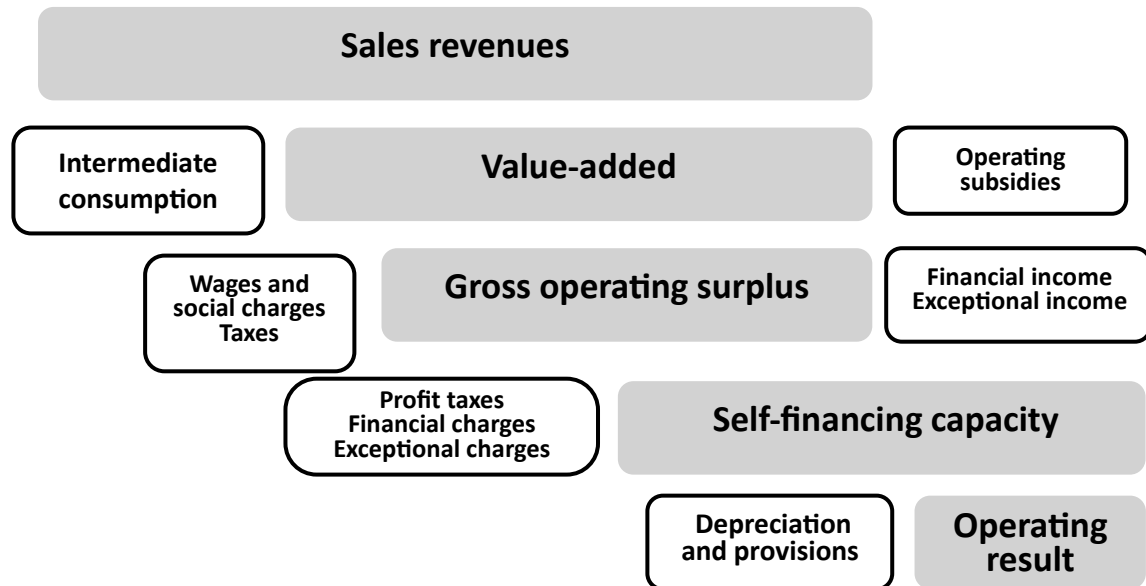
It is calculated using the following formula

Financial income = Financial products - Financial charges

❖ **Extraordinary result:** is defined as a singular item that is not intended to be repeated over several accounting periods, and is calculated using the following formula:

Extraordinary result = Extraordinary products - Extraordinary charges

Figure 6 : Intermediate management balances



Developed by us according to Source : (Claire-Agnès Gueutin, 2022)

C) Profitability ratios: Profitability ratios, such as the rate of profitability, express the relationship between operating income and sales, thus providing an assessment of the company's ability to generate profits. The following profitability ratios are presented:

❖ **Return on Equity (ROE):** This measures the company's ability to generate a return on the funds provided by its shareholders;

Return on Equity (ROE) = Net income / Shareholders' equity

❖ **Return on Capital Employed (ROCE):** ROCE provides a framework for assessing performance in relation to the overall cost of capital:

ROCE = GOS / Capital employed , (Claire-Agnès Gueutin, 2022).

D) The Economic Value-Added model: Financial indicators have been criticized, particularly since the 1970s, for their focus on shareholder value to the detriment of other stakeholders such as customers. However, since the 90s, renewed shareholder interest has revived the importance of financial metrics, accompanied by proposals for technical improvements to reflect the perspectives of entrepreneurs and investors.

The emergence of the Economic Value Added (EVA) model, promoted by Stern and Stewart, represents a recent advance in the measurement of economic and financial performance. EVA takes into account the full cost of the resources required to run a business, including the cost of equity capital, which is often omitted from traditional measures.

The purpose of calculating EVA is to assess net performance by considering the total cost of resources, expressed as their weighted average cost (WACC). This approach makes it possible to determine whether an entity has succeeded in adequately remunerating its capital providers, by generating positive financial value (Françoise Giraud, 2004).

$$\text{EVA} = \text{NOPAT} - (\text{WACC} * \text{Invested Capital})$$

Where:

NOPAT = Net Operating Profit After Tax

WACC = Weighted Average Cost of Capital

Invested Capital = Shareholders' Equity + Net Debt at the beginning of the period

3.2.3.2 Indicators for measuring a company's strategic performance

In this part, we'll explore the different indicators used to measure a company's strategic performance.

A) Balanced Scorecard (BSC)

The Balanced Scorecard (BSC), introduced by Robert Kaplan and David Norton in the USA in the 90s, challenges the traditional approach focused solely on financial indicators. It recommends a selection of indicators in line with the company's strategy. Primarily intended for senior management, the BSC guides the choice of indicators in four categories (Françoise Giraud, 2004).

❖ The Four Categories of Indicators

The BSC aims to balance the vision of performance by looking beyond the financial aspects. It proposes a structuring of indicators into:

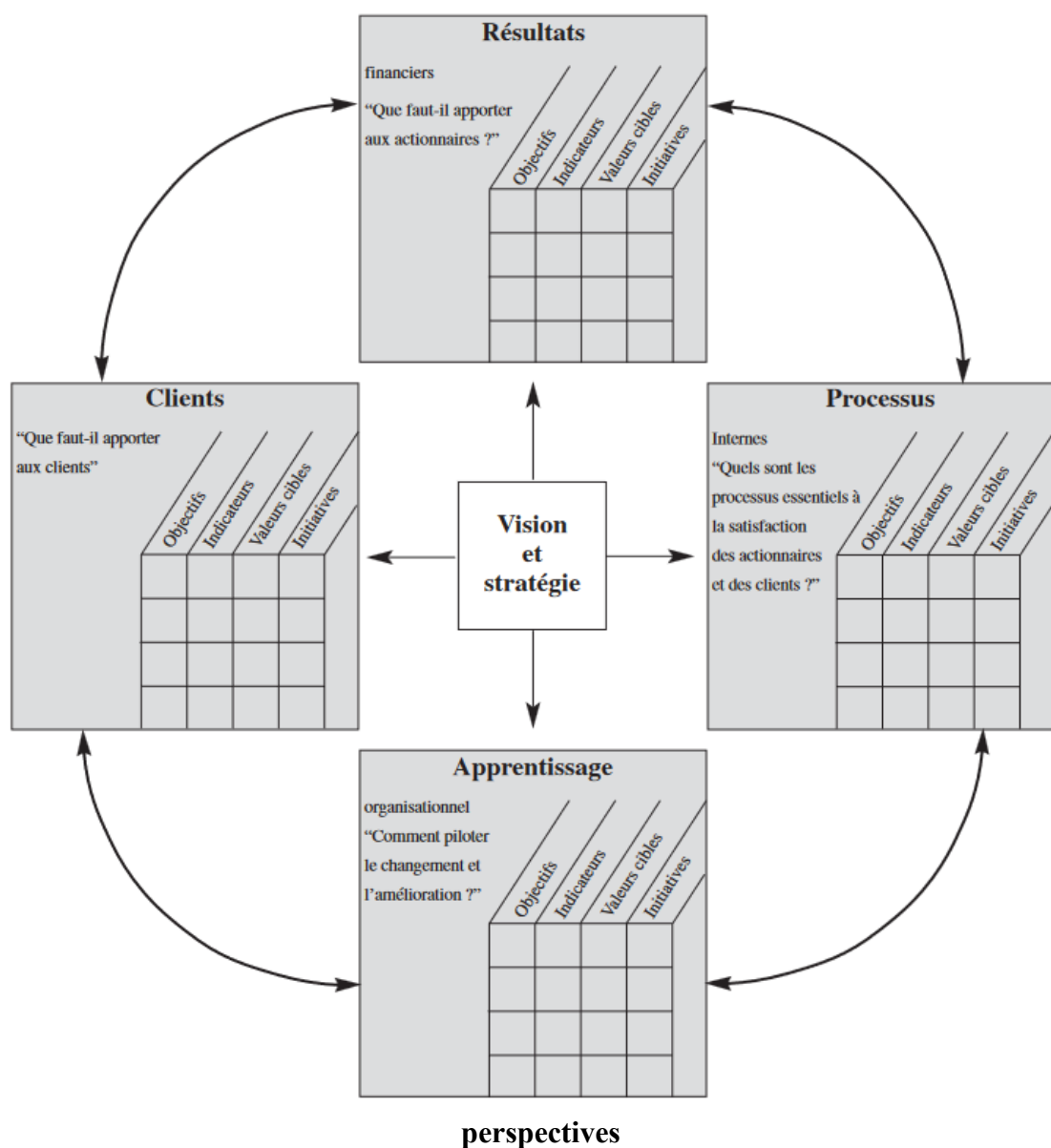
❖ **Financial performance indicators**, reflecting shareholder expectations. Their selection is consistent with the company's specific characteristics.

❖ **Customer satisfaction indicators**, considered to be linked to financial performance according to Kaplan and Norton.

❖ **Internal process indicators**, focusing on the quality of core processes such as production, innovation and after-sales service.

❖ **Learning indicators**, encompassing staff competence and motivation, as well as information systems performance, forming the basis of all other categories, (Françoise Giraud, 2004).

Figure 7 : The Balanced Scorecard of indicators organized into four



Source : (Françoise Giraud, 2004)

❖ **Interconnection of Indicator Categories**

The four categories of indicators are linked by a chain of causality: financial performance is the ultimate objective, conditioned by customer satisfaction, which in turn depends on the efficiency of internal processes, themselves supported by the motivation of players and high-performance information systems.

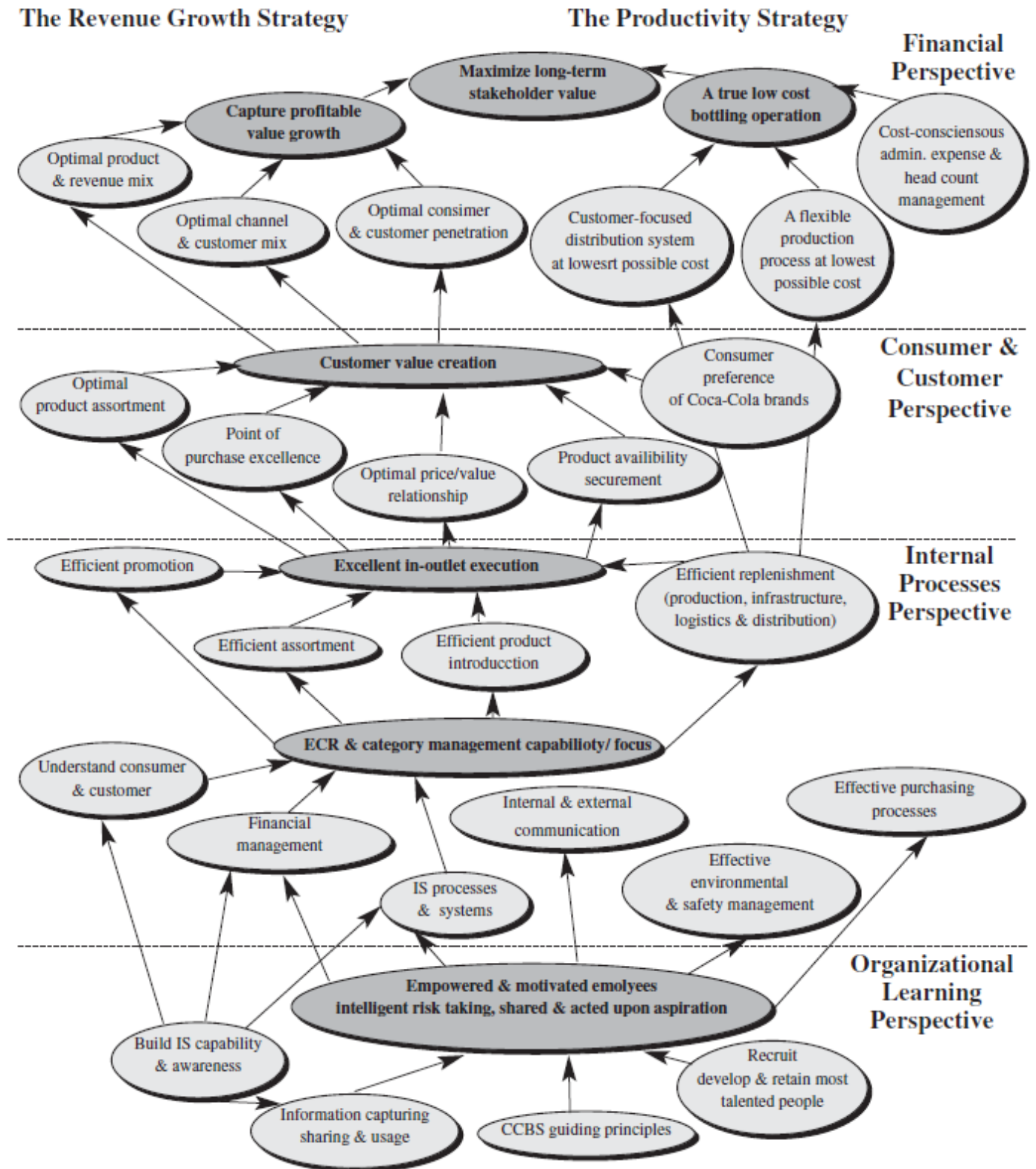
These perspectives are not mutually exclusive, but rather mutually reinforcing. The causal link between the categories highlights the predominance of financial indicators, reflecting the BSC authors' perspective of value creation for shareholders. These categories aim to capture both short- and long-term performance, by measuring both current financial results and the determinants of future results (Françoise Giraud, 2004).

❖ **Results and levers of action indicators**

The BSC methodology focuses on modeling performance by establishing cause-and-effect links between indicator categories. It also proposes to deepen the analysis of cause-and-effect relationships within each category, by combining indicators of observed results (lagging indicators) and indicators of factors influencing results (leading indicators).

Unlike dashboards, which are often perceived as lists of disconnected indicators, the BSC offers a complete model in which the indicators and their links are explicitly defined, as illustrated in figure 08 (Françoise Giraud, 2004).

Figure 8 : Example of performance model



Source : (Nils-Goran Olve, Jan Roy, & Magnus Wetter, 1999)

3.2.3.3 Operational performance measurement indicators

In this section, we will first explore the indicators used to measure operational performance. We will then look at the Tableau de Bord "à la française" or OVAR approach, an essential methodology we will be using in our research.

A) Criteria for measuring operational performance: According to (Shlomo Globerson & James L. Riggs, 1989) the criteria are :

Table 1 : Table of Operational Performance Indicators

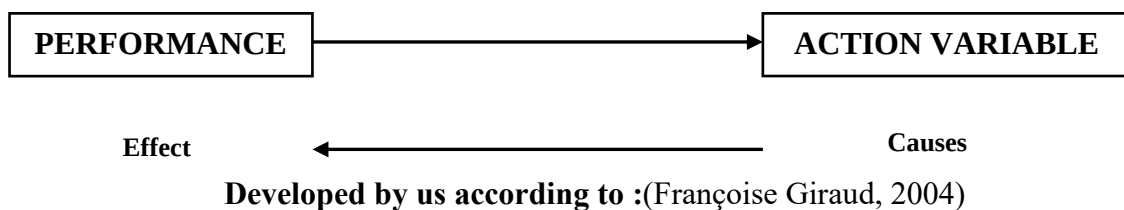
Indicator	Example
Quantity produced	Number of items sold per day. Customers served per hour. Quantity of wastewater disposed of per month.
Resource Utilization	Tons of water per month. Personnel equivalent per year. Machine uptime.
Operating efficiency	Items per machine hour. Sales per square meter. Production in dollars per dollar of input.
Quality and on-time delivery	Number of defects per 10,000 items. Late deliveries compared to total number of deliveries. Service time per customer. Percentage of rejects. Customer complaints per customer served.
Employee behavior	Percentage of absenteeism Percentage of turnover Number of suggestions per working year.

Source: Developed by us according to (Shlomo Globerson & James L. Riggs, 1989)

B) Indicators based on action levers

Lever-based Indicators are performance measures that focus on key elements that can directly or indirectly influence operational performance. Rather than focusing solely on final results, these indicators examine levers, such as product quality or service development, which may be key determinants of a company's operational performance. By focusing on these levers, these indicators enable a more in-depth analysis of the consequences of decisions taken upstream, thus offering a more complete diagnosis in the event of a problem, thanks to the diversity of indicators (Françoise Giraud, 2004).

Figure 9: Action levers as causes of performance



C) The "French-style" Tableau de Bord or OVAR approach

❖ Definition of dashboards

Analogous to an airplane or car dashboard, a management dashboard brings together the most relevant indicators, both financial and non-financial, to enable managers to steer the performance of their business. (Françoise Giraud, 2004).

❖ Dashboard development methodology

The most advanced methodology in France for developing dashboards is the OVAR method. This approach advocates the construction of a system of differentiated dashboards for the company's various entities and levels of responsibility, articulated in a coherent manner.

For the executive management dashboard, the OVAR method recommends the use of both indicators relating to objectives (O) and indicators relating to action variables (VA). Each of these dimensions must be defined in advance (Françoise Giraud, 2004).

❖ The definition of objectives (O)

The first step in the OVAR method is to define the company's mission and objectives. The mission expresses the company's overall raison d'être, often in terms of activity, products or

markets. This step is fundamental to the construction of dashboards, as it clarifies objectives and guides some of the indicators (Françoise Giraud, 2004).

❖ The identification of action variables (AV)

The second step in the OVAR method is to model the levers of action, referred to here as "action variables". These variables represent more operational indicators which have a direct impact on the achievement of overall performance objectives.

The "OVAR grid" provides a structured methodological framework for carrying out this reflection in a precise manner. It brings together objectives and action variables, and formalizes the relationships between them, thus facilitating the identification of associated indicators. (Françoise Giraud, 2004).

Figure 10: Example of OVAR grid

	objective n° 1	objective n° 2	objective n° 3
Variable n° 1	X		X
Variable n° 2		X	
Variable n° 3	X		
Variable n° 4			X

Developed by us according to : (Françoise Giraud, 2004)

Based on this grid, the second step is to draw up a list of indicators consistent with the objectives and action variables. For the grid described above, this list of indicators would follow the following structure (Françoise Giraud, 2004).

Figure 11 : From the OVAR grid to the list of indicators

Objectives	Objective indicators	Action variables	Indicators for action variables
objective 1	Indicator 1	Action variables1	Indicator a
	Indicator 1	Action variables 3	Indicator c

objective 2	Indicator 1	Action variables 2	Indicator d Indicator e
objective 3	Indicator 1	Action variables 1	Indicator a Indicator b
		Action variables 4	Indicator f

Developed by us according to : (Françoise Giraud, 2004)

The notion of action plan is more temporary than that of action variable, but also more concrete. By orienting dashboard indicators towards action plans rather than action variables, the tool becomes evolutionary because action plans are too.

❖ **Identifying the person responsible for each action variable**

Each action variable is associated with a manager who has predominant expertise in the field (Elisabeth Albertini, Frédéric Gautier, & Damien Mourey, 2018)

Figure 12 Délégations de responsabilités

	Objectif 1	Objectif 2	Objectif 3	Objectif 4	Resp. 1	Resp. 2	Resp. 3
Variable d'action 1	x		x			x	
Variable d'action 2		x			x		
Variable d'action 3				x	x		
...							

Source : (Elisabeth Albertini et al., 2018)

In summary, performance indicators remain an indispensable pillar of management control and overall organizational performance management. Traditionally, these indicators were mainly financial in nature, based on accounting data such as operating profit or various profitability ratios. Despite their objectivity and reliability, these financial indicators revealed some notable limitations, including a penchant for short-term vision, delayed feedback from managerial decisions and inherent difficulties in diagnosing and correcting problems.

To overcome these shortcomings, new approaches have emerged, combining both traditional financial indicators and non-financial measures. Methodologies such as the Balanced

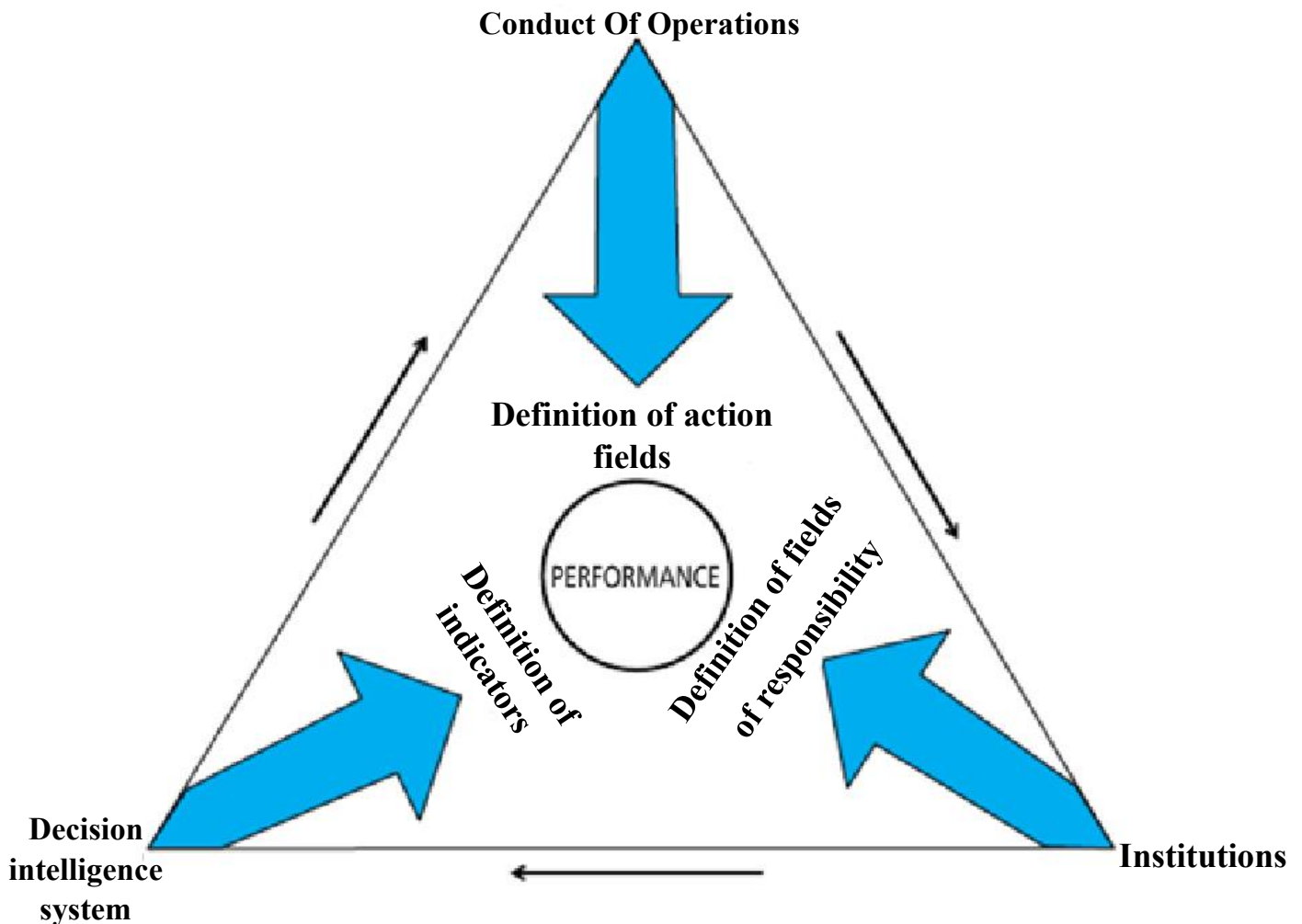
Scorecard or the Tableau de Bord "à la française" have emerged in this context. Their aim is to develop indicators aligned with the real drivers of performance, in line with organizational strategy. These approaches advocate the use of a limited number of synthetic indicators, while ensuring a balance between the different dimensions of performance, whether financial, customer-oriented, process-related or learning-oriented.

Despite being more comprehensive than traditional financial indicators, these new methodologies are not without their challenges. In particular, they require rigorous modeling of the cause-and-effect relationships between actions taken and results obtained in terms of performance. Nevertheless, they represent a significant advance in the overall understanding of organizational performance, enabling more proactive and predictive management of organizations.

3.2.4 Performance levers (including operational performance)

In their quest for global, sustainable performance, managers strive to put in place an efficient organizational structure. To this end, they define a structuring model based on architectural and operational choices. This structuring rests on three essential pillars, acting as levers of overall performance: operations management, institutions and the strategic decision-making system (Arnaud Sourisseau & Alain Sourisseau, 2014).

Figure 13 : The performance triangle



Developed by us according to (Arnaud Sourisseau & Alain Sourisseau, 2014)

❖ **Operations conduct**

Operations management in an organization, whether commercial or not-for-profit, can be defined as the way in which it deploys its products or services to its customers in its respective markets. Similarly, operations management in a non-profit or public service organization can be described as the way it offers its services to its users in the various geographical areas it is intended to serve (Arnaud Sourisseau & Alain Sourisseau, 2014)

❖ **The business model concept**

Emerged in the late 1990s, at the time of the "new economy" and the first Internet start-ups. It is also referred to as business model, activity model, revenue model or business model. An organization's business model can be defined as the way it generates wealth from the products or services it offers on the market, and how it distributes this wealth among different stakeholders such as suppliers and subcontractors. It is the way in which an organization organizes its activities in order to be financially viable. More precisely, a business model can be described as the value-creation strategies and methods specific to a given sector of activity. Thus, the notion of business model is closely linked to that of key success factors, which contribute to maximizing the value created (Arnaud Sourisseau & Alain Sourisseau, 2014).

❖ **The institutions**

For operational and support functions to collaborate efficiently and generate relevant decisions for the organization, management must establish the structures and mechanisms needed to share information and make informed decisions. These structures, referred to as internal governance bodies, play an indispensable role in facilitating interaction between the organization's various functions.

Internal governance bodies, which we call "institutions", can be defined as the places where decisions are discussed, debated and taken. They also ensure rigorous monitoring of the implementation of decisions. It is worth noting the serious nature of the term "institutions", deliberately chosen to designate these decision-making bodies, which must have irrefutable legitimacy, guaranteed by the Chairman and/or CEO.

The quality of institutions is judged at several levels: at the level of each individual institution, at the level of the coherence of the overall network, and at that of the inter-relationship between certain members. It is also crucial that institutions clearly define areas of responsibility within the organization, to ensure effective coordination of actions (Arnaud Sourisseau & Alain Sourisseau, 2014).

❖ **The decision intelligence system**

The implementation of a decision intelligence system relies on the efficient circulation of information within the organization. To guarantee this fluidity, it is crucial that

communication and circulation channels are well established, connecting the different functions and players within the company. These channels must be structured in line with the managerial hierarchy, enabling each level to distribute and receive relevant information. They serve as an essential foundation for objective, shared decision-making based on tangible data.

Within this communication infrastructure, two types of infrastructure need to be distinguished: internal communication, facilitated by collaborative tools, and external communication, using platforms such as the Internet for exchanges with the organization's external environment.

On the other hand, the organization's management system relies on a technological infrastructure, generally made up of ERP applications, which generate and manage production and management data. This infrastructure, considered the organization's nervous system, ensures the flow of structured data across all levels, thus forming the organization's intelligence capacity.

These communication and control infrastructures form the basis of an organization's decision intelligence system. This system, also known as a business management system, provides computerized business information geared towards operational activities. It meets key criteria relating to its content, its collective development and its role in the organization, thus contributing to informed decisions and better overall corporate performance. (Arnaud Sourisseau & Alain Sourisseau, 2014)

In conclusion, the quest for global and sustainable performance for an organization rests on three fundamental pillars that act as interconnected performance levers: operations management, internal governance institutions and the decision intelligence system.

Operations management refers directly to the company's operational performance, in other words, how effectively and efficiently it deploys its products or services in its target markets, in close relation to its business model of value creation and capture.

Institutions, or internal governance bodies, provide the framework for steering this operational performance, ensuring a legitimate, structured and effective decision-making process at all levels of the hierarchy. Their architecture and operating mechanisms determine the quality of strategic and operational decisions.

The decision intelligence system also supports operational performance management by enabling the fluid circulation of activity data between functions, thus fuelling the ability to analyze and continuously adjust operations.

It is therefore the coherent synergy between these three levers that optimizes the company's operational performance, ensuring alignment with overall strategy and ongoing adaptation of operational processes on the basis of informed decisions. A failure in any one of these levers can quickly have repercussions on operational efficiency, and compromise the achievement of targeted performance objectives.

3.3 The impact of management control on a company's operational performance

In this section, we explore in detail the essential role of management control in improving corporate performance. We begin by examining the various studies and research demonstrating the positive impact of management control on companies' operational and economic performance. Next, we will analyze the mechanisms by which management control facilitates the alignment of operational activities with strategic objectives, highlighting concrete examples of its influence on decision-making and resource allocation. Finally, we will discuss the implications of these findings for corporate management and governance, highlighting the importance of an integrated approach to management control in maximizing organizational performance.

3.3.1 The role of management control in improving company performance

Numerous studies have shown that management control plays an essential role in improving corporate performance. Here are just a few of them:

According to (Elena Roig, 2021, p. 22) in their article *"Le contrôle de gestion au service du pilotage de la performance: quels outils mettre en place et comment la participation budgétaire peut-elle impacter la performance de l'entreprise?"* management control plays a crucial role in improving corporate performance, by establishing an essential link between operational activities and overall objectives. By monitoring the organization's achievements, comparing results with expectations, and analyzing variances, management control contributes directly to financial and economic performance. For example, through budgetary control, managers can identify variances and take corrective action to improve performance.

Similarly, by using appropriate costing methods, controlling enables costs to be allocated efficiently to the products or services concerned, making it easier to identify unprofitable

areas and implement corrective measures. What's more, by promoting dialogue between the organization's various departments and acting as a communication facilitator, management control helps to align behavior with the company's strategic objectives, thus fostering the development of overall organizational performance.

Cappelletti and Khouatra, conducted a study on the benefits of a management control system in small businesses, focusing in particular on liberal professions. Their approach was to implement a management control system in 350 notary offices in France over a six-year period. Their research methodology was mixed, combining both qualitative and quantitative elements.

The researchers examined five explanatory variables for successful implementation, including the skills of those involved, the size of the company, the involvement of the manager, and the management control skills of the manager and management. The results of this study show that implementing an adapted management control system can be an effective way of improving both the social and economic performance of small businesses. This research underlines the importance of adapting management control systems to the specificities and needs of small businesses, which can contribute to strengthening their overall performance (Cappelletti & Khouatra, 2009).

According to (Rachid & Azzeddine, 2021), Management Control plays a crucial role in improving corporate performance by providing a framework for monitoring and evaluating organizational activities.

❖ **Strategic alignment:** Effective management control ensures alignment between organizational objectives and actual performance, thereby assisting strategic decision-making and resource allocation.

❖ **Performance assessment:** thanks to management control, companies can assess performance against targets, identify areas for improvement, and implement corrective actions to improve overall efficiency and effectiveness.

Administrative control is proving to be an essential lever for improving corporate performance, as a number of studies have shown. Elena Roig's article highlights the crucial role of management control in aligning operational activities with overall objectives, notably through budgetary control and efficient cost allocation. Likewise, the study by Cappelletti and Khouatra highlights the positive impact of an adapted management control system on

the performance of small businesses, underlining the importance of tailoring these systems to the specific needs of each organization. Finally, according to Rachid & Azzeddine, management control plays a crucial role in ensuring strategic alignment and enabling continuous performance assessment, thus contributing to the constant improvement of organizational effectiveness and efficiency. These studies converge towards a common conclusion: effective management control is a fundamental pillar of corporate success and growth.

Management control plays a crucial role in improving corporate performance. Its primary function is to steer the achievement of economic results, such as profit, financial equilibrium and the creation of shareholder value. Contrary to a disciplinary approach, management control is defined more by a notion of control, akin to self-discipline. It enables us to monitor the achievement of organizational objectives, and to take corrective action in the event of discrepancies between expected and actual results. By integrating financial and operational data, it helps to identify the factors influencing company performance, and to formulate effective strategies for dealing with them. In this way, management control makes a significant contribution to optimizing resources and maximizing economic results, thus ensuring the company's long-term growth and sustainability (Françoise Giraud, Olivier Saulpic, & Carole Bonnier, 2008) .

In conclusion, management control plays a vital role in the governance and optimization of corporate performance. Management control tools provide a means of measuring performance, enabling improvement levers to be identified and corrective actions implemented. In the following section, we look in detail at the essential management control tools and methods used to optimize performance systematically and effectively.

3.3.2 Key management control tools and methods for optimizing performance

This section focuses on the key controlling tools and methods that are essential for optimizing overall corporate performance. We look in detail at three fundamental elements: the management dashboard, Enterprise Resource Planning (ERP) systems and the Balanced Scorecard (BSC). Each of these tools offers distinct advantages in terms of managing organizational activities, strategic decision-making and performance measurement. By exploring their respective roles, we will gain a better understanding of how these tools contribute to the continuous improvement of operational performance and the achievement of the company's strategic objectives.

3.3.2.1 The dashboard

The management dashboard is an essential tool in the field of management control. It provides a summary view of the main indicators needed to effectively manage a company's activities. Among the essential tools and methods of management control, the dashboard plays a crucial role in optimizing a company's overall performance. By providing a concise representation of data, it simplifies the discussion around the company's strategic objectives and helps focus the dialogue on performance. By highlighting figures in a concise way, the dashboard clearly identifies areas of potential improvement, prompting further analysis to drive better performance, whether financial or operational. What's more, by highlighting positive indicators aligned with objectives, the dashboard boosts employee motivation by recognizing their efforts and encouraging them to keep up the good work. In short, the dashboard offers more effective performance management by integrating the company's financial, economic, organizational and strategic aspects (Elena Roig, 2021, p. 43).

3.3.2.2 ERP or Enterprise Resource Planning

plays an essential role in optimizing company performance, particularly in the field of management control. Thanks to their use, several significant advances have been made. First and foremost, ERP eliminates organizational compartmentalization by providing a cross-functional view of the company, opening up new perspectives in management and decision-making. With the support of management control, executives have access to complete and accurate information, enabling them to make faster, more effective decisions. What's more, ERP systems help controllers save time by ensuring reliable, regularly updated collection of company data, as well as facilitating the production of customized management reports. This automation of routine tasks frees up time to concentrate on higher value-added activities, such as forecasting and results analysis. In short, ERP systems bring four major changes to management control: the elimination of routine tasks, the transfer of accounting knowledge to field managers, the use of leading indicators and an expanded role for controllers (Scapens & Jazayeri, 2003).

3.3.2.3 The Balanced Scorecard (BSC):

Is an essential management control tool, offering several advantages for optimizing overall corporate performance. First of all, one of its major strengths lies in its ability to involve and bring together all the company's departments, thus encouraging interdepartmental

collaboration in order to respond in a concrete and relevant way to strategic decisions. In addition, the BSC clearly formalizes the company's strategy, providing the opportunity to work on it to fine-tune it and ensure that it is aligned with organizational objectives. By detailing each strategic axis, the BSC facilitates the precise measurement of performance, thus encouraging continuous improvement in all areas of the company. Finally, by going beyond simple financial performance management, the BSC is part of a global performance management approach, offering a multidimensional measurement system that ensures the evolution of the company in all its aspects (Elena Roig, 2021, p. 46) .

3.3.3 Effective integration of management control practices to maximize operational performance

As mentioned above, management control tools are of crucial importance in optimizing organizational performance. Thus, effective management control within any company is essential to boosting its performance. In this section, we'll look at the three main elements that characterize effective management control.

According to (Pierre Maurin, 2008), the three keys to effective management control are :

3.3.3.1 Integration of IT tools

In today's environment, the use of management information systems has become essential to guarantee the effectiveness of a management control system, whatever the size of the company:

- The growing accumulation of data, requiring increasingly exhaustive data collection.
- Increasing time pressure on company decision-makers, forcing them to think faster and faster.
- Strategic decisions, taken more and more rapidly, which have a significant impact on the company's future.
- The processing and analysis of information is becoming increasingly complex and time-consuming
- The increasing need for precise and technical management.
- The often excessive and imposed versatility of the staff.
- The constant pursuit of improving labor productivity.

Faced with these technical challenges, it is essential to automate as much as possible the processing and reporting of the data necessary for the company's management. When

drafting the specifications, it is therefore crucial to consider the IT aspects of any implementation of management methods and tools.

It is imperative to address automation after precisely defining the management needs and selecting the necessary indicators for the company's control, thus adhering to a rigorous process to ensure the effectiveness of management control.

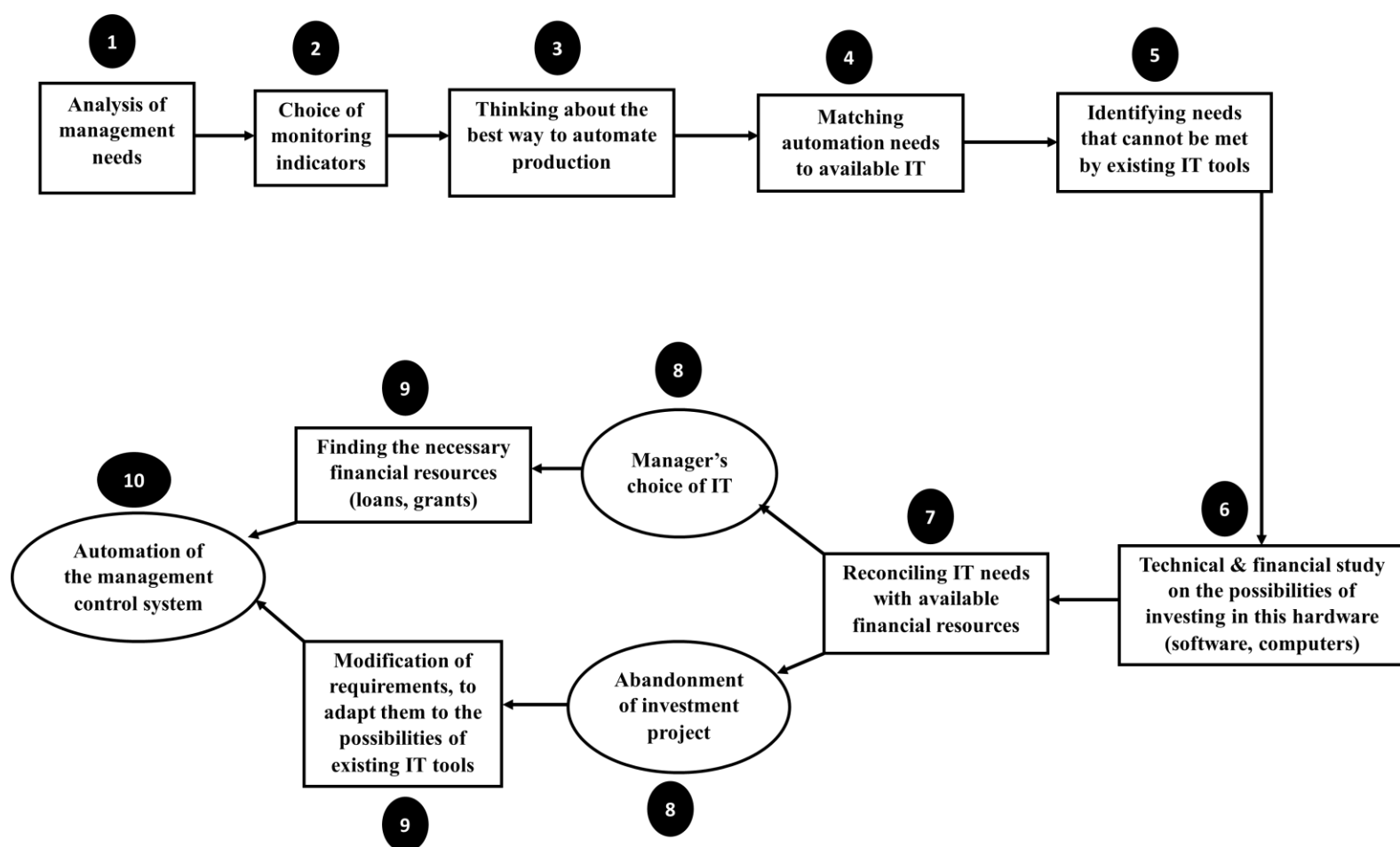
3.3.3.2 Implementing appropriate procedures

Once the question of automating the management control system has been resolved, it remains crucial to secure the overall operation by means of rules and procedures covering various aspects:

- Feeding raw data into the management system.
- Checking the validity of the information entered.
- Verification of the reliability of the calculation methods used.
- Distribution of results, including commented dashboards and analysis reports.

These procedures are designed to facilitate the organization and coordination of the operations that make up the management control system.

Figure 14 : Process automation diagrams for management tools



Developed by us according to (Pierre Maurin, 2008)

❖ Feeding the management control system

To ensure that the management system is properly supplied with information, the management controller must set up data entry procedures to facilitate the work of the managers concerned. An effective data entry procedure should cover:

- Rules for allocating data to the appropriate accounting accounts.
- Procedures for creating and updating accounting and analytical accounts.
- Wording rules for each account.

❖ Checking data input

Once the data has been entered, it is crucial to check that it is relevant and accurate, in order to avoid false information and erroneous decisions. An upstream check, during raw data entry, is clearly preferable to a massive downstream check.

❖ **Checking data processing**

Once the data has been entered and checked, the management controller applies various processes to obtain usable information. This processing must be controlled over time to avoid distorting the decision-making tools. The management controller must set up an appropriate control procedure to regularly verify the reliability of the calculations required for dashboards and reporting.

❖ **Processes for disseminating processed data**

Once the data has been processed, it is essential to distribute it to the right people in the right way. The transmission of information must be accurate, relevant and carried out within a timeframe acceptable to all concerned. Well-managed internal communication can boost staff confidence in decision-makers, and make it easier to manage the company's challenges and risks.

3.3.3.3 Internal management communications

In parallel with the usual process of disseminating management information, it may be necessary for the management controller and/or the company's top management to occasionally address targeted communications to employees. In such circumstances, the logic for disseminating technical and financial information concerning the company's business must differ considerably from that applied previously for the company's various managers.

Depending on the nature of the management information intended for employees, the management controller must collaborate with management to set up a communication procedure adapted to the company's general and specific situation. The aim is to avoid several potential pitfalls:

- Any risk of disclosing crucial information outside the company.
- Unjustified concern among employees about the company's financial situation.
- The creation of social conflicts between employees and the company's various decision-makers (executives, line managers).
- A loss of trust between employees and management in the management and development of the company's business.

- demotivation of employees and their line managers in the event of economic difficulties.

Thus, controlled and relevant internal communication can become a crucial tool for strengthening staff confidence and commitment to complex or risky company projects. It can also facilitate the acceptance of new indicators, which require the cooperation of employees to feed in and monitor.

In addition, it enables the head of the company and/or the management controller to weave an effective internal alert network, relying on the various operational managers and employees, who are often in the best position to detect problems threatening the smooth running of the company. The latter will be more inclined to report important information, and will feel more confident, if they are regularly informed of their company's situation, and know that they will always be listened to and respected by management and the management controller.

3.3.4 Limits and opportunities in applying management control to achieve optimum operating performance

The effectiveness of management control in the quest for optimum operational performance is undeniable, providing a structured framework for defining clear objectives, controlling costs and monitoring financial performance. However, this approach is not without its challenges. In this section, we explore the opportunities that management control offers for optimizing operational performance, while examining the challenges that may arise, particularly those revealed by nuanced studies of the link between management control and companies' performance.

3.3.4.1 Opportunities for applying management control to achieve optimum operational performance

In the course of this first section, we have explored the many advantages of management control. According to (Elena Roig, 2021) these benefits include:

- ❖ **Clear definition of objectives and their effective achievement:** Controlling establishes clear strategic and operational objectives, ensuring that they are understood by all stakeholders and aligned with the company's overall strategy.

- ❖ **Calculating and monitoring company costs to keep them under control** Controlling collects, analyzes and monitors the costs associated with the company's

activities, identifying opportunities for cost optimization and making informed decisions on resource allocation.

❖ **Financial forecasting for improved management and appropriate responses**

Controlling develops financial forecasts based on historical data and assumptions, enabling the company to plan its activities, identify potential risks and implement appropriate action plans.

❖ **Monitor the company's overall performance and propose corrective measures**

Controlling closely monitors actual performance against targets and forecasts, rapidly identifying deviations and proposing corrective action to restore the desired performance.

❖ **Analysis of selected indicators to advise management if necessary:** Controlling analyzes key performance indicators to identify trends and the company's strengths/weaknesses, thus advising management on actions to be taken to improve performance.

3.3.4.2 The limits of applying management control to achieve optimum operational performance

Controlling is an essential tool for achieving optimum operational performance within an organization. However, there are certain limitations to its application:

❖ **System complexity:** In complex organizations, particularly those with diversified or decentralized operations, it can be difficult to establish effective management control systems that cover all aspects of the business.

❖ **Resistance to change:** Members of the organization may resist management control processes if they perceive them as challenging their autonomy or way of working.

❖ **Cost vs. benefit:** Implementing and maintaining management control systems can be costly. It is therefore important to ensure that the expected benefits in terms of operational performance outweigh these costs.

❖ **Measuring intangibles:** Controlling often relies on quantitative measures, but it can be difficult to quantify certain intangible aspects of performance, such as customer service quality or innovation.

❖ **Bureaucratic red tape:** Too much control can lead to excessive bureaucracy, slowing down decision-making processes and reducing the organization's responsiveness.

❖ **Time lag:** the information used for controlling is often historical, which can lead to a time lag between decision-making and the actual event.(Bouquin, H., 2010)

In conclusion, the examination of management control in this chapter underscores its indispensable role in modern business management. From enhancing financial performance through rigorous budgetary oversight to fostering strategic alignment across organizational functions, management control serves as a cornerstone for achieving operational excellence and sustained growth.

Empirical evidence and theoretical insights presented throughout this chapter demonstrate that effective implementation of management control systems not only optimizes resource allocation but also cultivates a culture of accountability and continuous improvement within organizations. By leveraging tools such as ERP systems, dashboards, and the Balanced Scorecard, businesses can streamline operations, mitigate risks, and respond swiftly to changing market demands.

**CHAPTER 02:
METHODOLOGICAL
FRAMEWORK**

CHAPTER 02: METHODOLOGICAL FRAMEWORK

The effective management of organizational performance remains a pivotal concern for contemporary enterprises striving to navigate dynamic market landscapes and achieve sustainable growth. Central to this pursuit is the strategic implementation of management control systems, which play a crucial role in aligning operational activities with overarching business objectives. This chapter examines the methodological framework adopted in investigating the relationship between management control and operational performance within the context of SIM and PROMASIDOR DJAZAIR companies. Grounded in an interpretivist epistemological stance, this study employs qualitative methods to explore stakeholders' perceptions and experiences, aiming to elucidate the mechanisms through which management control practices influence organizational effectiveness.

Section 01: Research methodology.

In this section, we will highlight the methodological approach adopted to enlighten our research. As pointed out by (Omar Aktouf, 1987), the methodology represents "the logical procedure of a science, encompassing all the specific practices it uses to guarantee the clarity, evidence and irrefutability of its demonstrations and theorizations". Thus, describing the chosen methodology is of crucial importance in the design of any scientific research, as it enables us to describe the various stages that led to the collection of the data required for our study, and to justify the results obtained.

1.1 The epistemological posture

In the field of economics and management, any research study must be anchored in one of the following theoretical frameworks: positivism, constructivism or interpretativism (Salma Boukaira & Mohamed Daamouch, 2021, p. 4).

Pierre Paillé (2006) defined interpretation as "an attribution of meaning, meaning in turn being a context for understanding, the latter coming into existence when links between things or events become visible and/or familiar, and/or predictable, and/or logical, and/or plausible, and/or functional" (Pierre Paillé, 2006).

Interpretativism, considered a moderate form of constructivism (Girod-Séville M & Perret V., 1999), rejects the idea of objective knowledge of reality. According to this perspective, the socio-economic world is shaped by interpretations arising from interactions between

individuals. The link between the observing subject and the observed object is interdependent, in contrast to the independence advocated by positivism. In interpretativism, the worldview is intentional, whereas in positivism it is determined. The knowledge produced is necessarily subjective and contextualized, as opposed to the objectivity of positivism.

In the interpretivist approach, knowledge emerges from an understanding of the meaning that actors give to reality. Although interpretativism and constructivism share a similar approach to knowledge, they differ on at least two points. Constructivism participates in the construction of reality, while considering that the understanding of phenomena is linked to the purpose of the research project.

For both interpretivists and constructivists, deduction is one possible method among others, such as analogy or metaphor. Interpretivists place particular emphasis on the singularity of the events studied, and on communication. Indeed, these singular events make it possible to identify general laws of phenomena, and their understanding derives from the specific context in which they occur. Moreover, the use of language and terminology specific to social actors facilitates a better understanding of perceived realities. Thus, the researcher must appropriate these elements to understand realities as they are experienced and interpreted by the actors themselves (Anne-Sophie Constant & Aldo Levy, 2017).

The adoption of a rigorous epistemological posture is of paramount importance in guaranteeing the quality and relevance of research work in the field of management science.

As part of our research into management control and its contribution to the operational performance of SIM and PROMASIDOR DJAZAIR companies, we have opted for an abductive interpretivist epistemological approach. This approach recognizes that organizational reality is socially constructed through the subjective interpretations of the actors involved. Focusing on interviews with senior managers and department heads, we seek to understand their perceptions, beliefs and meanings attributed to management control and its impact on operational performance. Interpretativism highlights the importance of social interactions and communication processes in the construction of organizational knowledge and practices. Thus, this perspective will enable us to explore in depth the lived realities of the participants, emphasizing the diversity of perspectives and experiences within the companies studied. In adopting this epistemological posture, we are conscious of the subjectivity inherent in our research and the importance of integrating the multiple

interpretations of the actors for a thorough understanding of the relationship between management control and operational performance.

1.2 Methodology

The quality of scientific research depends largely on the researcher's ability to establish the credibility of his or her findings (M Drapeau, 2004, p. 54).

To carry out scientific research successfully, it is crucial to adopt a rigorous methodology that is in line with the variables selected. This approach ensures clear, reliable results in response to the research question. In this presentation, we will detail the tools, methods and practices used to conduct our study. In this way, a precise description of our methodological approach will justify the results obtained and ensure the scientific validity of our work.

1.2.1 Methodological approach

To address our research question, centered on the problematic:

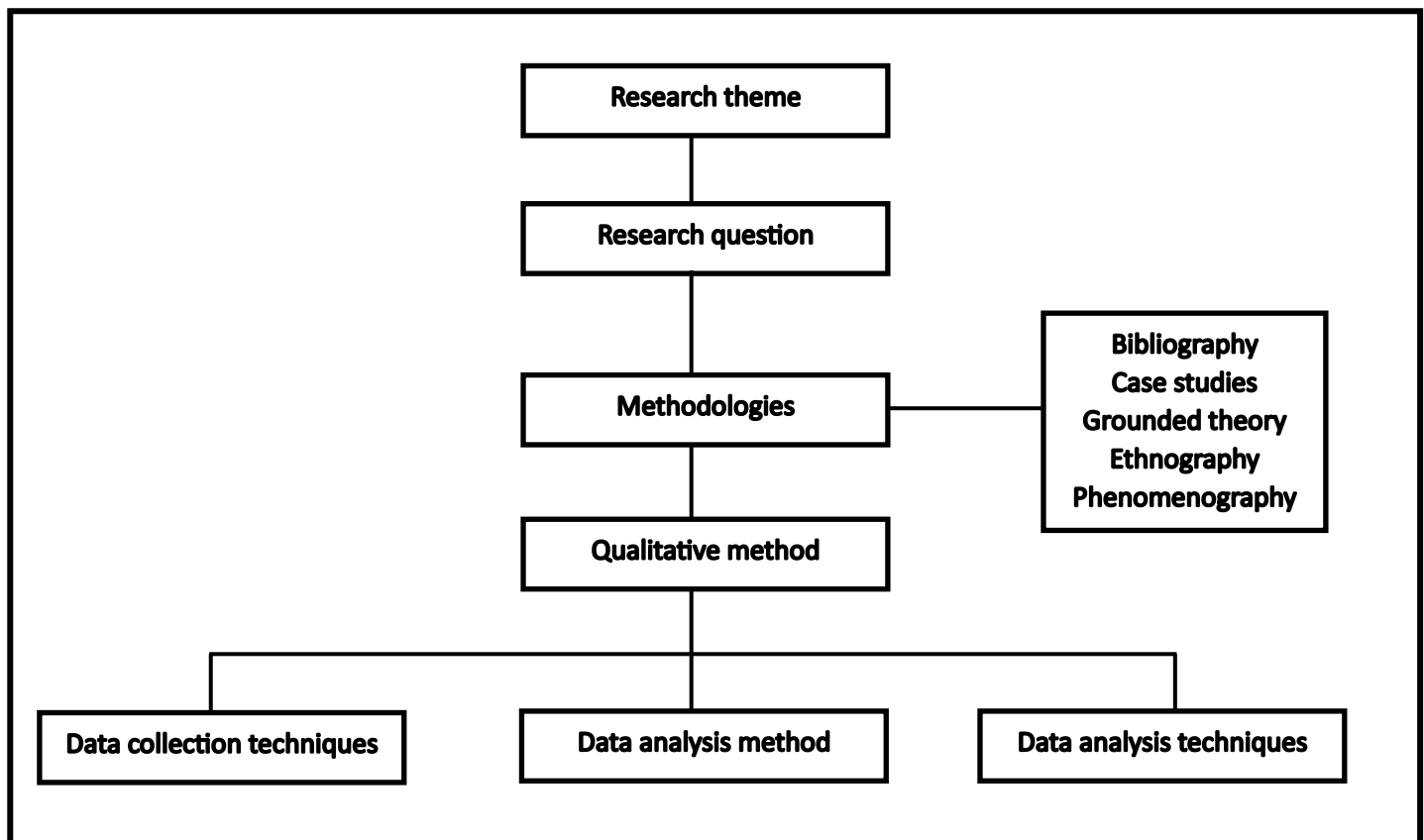
“How can management control contribute to improving a company's operational performance?”

We have chosen a qualitative methodological approach due to the nature of our research subject. Given that our research focuses on exploring and analyzing stakeholders' perceptions and experiences, using interviews to gather verbal data proved to be an appropriate decision.

In addition, the exploitation of "documents" also offered us the opportunity to collect data relevant to our study.

Finally, we also used observation as a complementary method to gather contextual and behavioral data, enriching our overall understanding of the phenomena studied.

Figure 15 : Qualitative approach



Elaborated by us according to: (I. et al., 2008)

As part of our research on the theme of Management control for corporate operational performance, a comparative study between SIM and PROMASIDOR DJAZAIR, we will examine the tools used by SIM and PROMASIDOR DJAZAIR. This analysis will enable us to better understand how these tools contribute to the organization's global operational performance.

1.2.2 Data collection tools

Data collection is a crucial stage in any qualitative research, as it enables us to gather relevant information for analysis. The choice of data collection tools and methods is essential to guarantee the rigor and reliability of the data. It is therefore important to select tools according to the research subject, its context and available resources.

❖ Interviews

The interview is an information-gathering method that involves face-to-face interaction between interviewer and interviewee. This form of communication takes several forms, but differs from the usual conversation in its specific objective:

Data collection. It is based on a special relationship between the two parties. In all cases, the researcher's epistemological position must be taken into account: it guides the objective of the interview, the methods of questioning and the subsequent processing of the data collected. Although there are several types of interview, it is important to note that some closely resemble each other despite the apparent distinctions. (Gérald Boutin, 2019, p. 23).

Choosing the type of interview best suited to our research is crucial for us. Whether semi-directive, non-directive or other, it determines how we will interact with our participants and obtain the necessary information. Each approach offers its own advantages and limitations, so we need to carefully consider what best suits our objectives and our relationship with our study subjects. By making this decision thoughtfully, we ensure that our data will be relevant and useful in answering our research questions.

❖ Type of interview chosen (Semi-directive interview)

The semi-directive interview is an interview method in which the interviewer begins by asking a warm-up question, then guides the respondent through his answers to articulate his thoughts around pre-established themes. The interviewer then guides the respondent through his or her answers, articulating thoughts around pre-established themes. The interviewer generally leaves open the possibility of developing other themes that the researcher may not have thought of when preparing the interview. This approach is frequently used in the educational sciences, and in the humanities and social sciences in general. It combines a non-directive posture, focused on the interviewee and his or her role, with particular attention to the information to be obtained from the interviewee. In this context, the interviewer may choose to use an interview guide with themes to explore, or even open-ended questions (Gérald Boutin, 2019, p. 37).

As part of our comparative study on "Management control at the service of a company's operational performance: a comparative study between SIM and PROMASIDOR

DJAZAIR", we developed an interview guide in order to structure our exchanges and gather information relevant to our research.

We decided to adopt a semi-directive interview approach. We chose senior executives from the SIM and PROMASIDOR DJAZAIR companies, as well as heads of departments with a direct relationship with operational performance and management control. These key players were selected for their expertise and experience in the areas under study, which will enable us to obtain relevant and in-depth information for our research.

The timing and objectives of each interview were communicated to the participants in advance, and were agreed according to their availability and busy schedules.

To conduct the interviews effectively, we followed a three-stage process:

Firstly, we drew up an interview guide that served as a framework for addressing the relevant themes and asking the appropriate questions. This guide was developed in alignment with our research objectives, aiming to maximize the quality and relevance of the information gathered for our study.

Next, we organized face-to-face meetings with SIM/ PROMASIDOR DJAZAIR's senior executives, heads of departments with a relationship to operational performance and management control, to initiate the interviews. The question-and-answer exchanges that followed generally lasted around 30 minutes, and all data was rigorously recorded on Google Forms.

Finally, once all the relevant information had been collected, we analyzed and organized it according to the different parts of our work where it would be most appropriate. This data processing stage will be detailed in the next part of our study.

1.2.3 Data analysis tools

In a qualitative approach, a variety of data analysis tools are available. However, for qualitative research, it is essential to diversify the methods available so that the researcher can select those that best suit their objectives.

When analyzing interview data, summary tables are invaluable tools for organizing and synthesizing the information gathered from participants. They make it possible to bring together the responses of different participants on specific themes or questions, facilitating comparison and the identification of trends and divergences (Matthew B. Miles, A. Michael Huberman, & Johnny Saldana, 2013).

A summary table for interview analysis generally comprises rows representing each participant or group of participants, and columns corresponding to the questions or themes addressed during the interviews. The table cells then contain verbatim extracts, summaries or codes representing the participants' responses to each question or theme (Matthew B. Miles et al., 2013).

In our research, we have chosen to use the summary table as a tool for analyzing interview data because of its ability to organize the information gathered from participants in a clear and concise way. The summary table will enable us to group participants' responses around the specific themes or questions of our research, facilitating comparison and the identification of trends and divergences. By using this method, we will be able to analyze in depth the qualitative data collected during the interviews and obtain significant insights to answer our research questions.

1.2.4 Sampling of the study population

The group of participants in this study includes both senior executives of the SIM/PROMASIDOR DJAZAIR company, and heads of departments with a relationship to operational performance and management control.

In our research, we used a non-probability sampling method, specifically by convenience sampling. This means that participants were selected according to specific criteria linked to our subject of study, which is operational performance and management control, and their availability.

We deliberately chose individuals with a direct relationship with these fields within the company, such as senior managers and department heads involved in operational management and management control. By selecting participants with relevant expertise and experience, we aim to obtain rich, in-depth data to answer our research questions.

The interview guide plays an essential role in the effective structuring of interviews. It is much more than a simple list of questions, requiring careful elaboration. It defines which questions to ask and how to formulate them, providing an overall framework while remaining flexible enough to adapt to responses and new questions as they arise. Designed as an evolving tool, it encourages interaction between interviewer and interviewee (Deborah Cohen & Benjamin Crabtree, 2006).

Our interview guide is divided into three distinct parts, each designed to deepen your understanding of management control and its impact on operational performance within the company. First, we begin with a clearly defined introduction, highlighting the purpose of the interview and the importance of your contributions to enrich our research. Then, the first part is dedicated to introducing the interviewees, seeking to understand their academic or professional background, as well as their role within the company.

The second part focuses on understanding management control and operational performance, exploring their perceptions and experiences in these areas.

Finally, the third part analyzes the impact of management control on operational performance, examining various aspects such as internal collaboration, risk management, and the challenges of communicating management control information to stakeholders. Each question is carefully designed to gather relevant and in-depth information, in order to enrich our analysis as part of our dissertation.

1.2.5 Presentation of interviewee profiles

Here's a table showing the managers and department heads we interviewed.

Table 2 : Presentation of SIM and PROMASIDOR DJAZAIR interviewees

Company	Name and function	Education	Experience	Role and Responsibilities
PROMASIDOR DJAZAIR	Redouane Hmimed Production Department Manager	Degree in Industrial Engineering	8 years	Supervision of production operations, optimization of processes, management of production teams.
	MAHDJOUB Zouhir, Accounting Officer	Bachelor's in Finance and Accounting, Master's in Management	1 year	Bookkeeping, entry of accounting transactions, tracking fixed assets, account analysis, closing activities.
	Youcef Djellabi, Accounting Officer	Master's in Accounting and Auditing	3 years at PROMASIDOR	Purchase accounting, monitoring supplier balances, various accounting tasks.
	Hicham KHEGAR, Management Controller	Master's in Accounting and Auditing	3 years	Group reporting, preparation of financial statements and budgets, identification and analysis of variances.
	Djeghab Meriem, Marketing Department Manager	Master's Degree in Marketing	10 years	Marketing strategies, management of advertising campaigns, market analysis.
	Zineddine Boucetouh, Industrial Management	Degree in Law with additional training in accounting	11 years	Monitoring and analyzing all production-related costs from

	Control Department Manager			purchase orders to the sale of finished products.
	Samira Benyattou, Quality Department Manager	Degree in Quality Management and Industrial Engineering, HSE Diploma	14 years	Quality management, implementation of standards.
SIM	Filali Ali, Head of Spare Parts and Various Supplies Department	Advanced Technician in Stock Management and Supply, Diploma in Management	13 years	Purchasing (import and local), supplier evaluation, cost minimization.
	MORAD SOURIBENSOURI, Maintenance and Conditioning Manager	DEUA in Mechanical Engineering, Industrial Maintenance option	8 years	Maintenance, spare parts orders.
	REBIAI RAFIK, Quality Laboratory Manager	Agricultural Engineer, training in Sampling, HACCP Management	17 years	Product compliance, management of non-conforming products, laboratory management, control of raw materials and packaging, application of HACCP method.
	Zoubir Belhadf, Chef Human Resources Section Head	Bachelor's +3 in Civil Engineering, Higher Diploma in Management Sciences, Mini MBA in HRM	Over 14 years in HRM	Personnel management, recruitment, training.
SIM	Masoud Khazar Production Department Manager	Engineering degree in Process Engineering - Certifications in HACCP - ISO 22000 quality management courses - Six Sigma training	Over 15 years' experience in the field	Production management Production department human resources management Inventory management Reporting and communication Cost management Resource efficiency assurance

Source: Elaborated by us

Section 02: Presentation of host organizations

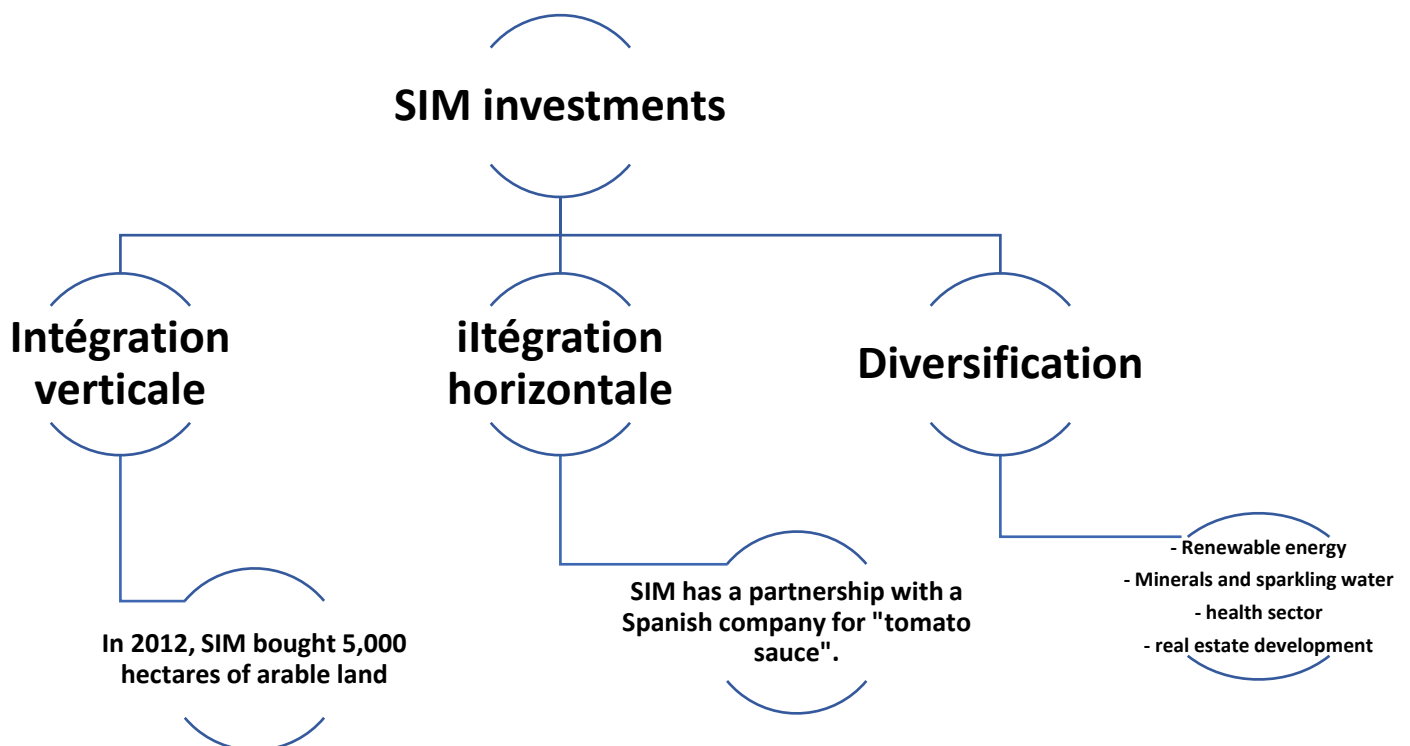
2.1 History of “SIM” company

The company started up in 1990 as a small family mill, managed by TAYEB ZEGHAIMI Abdelkader and his three sons. This mill was the first private mill in Algeria to process grain, with a capacity of 150 tons/day, human resources of 40 employees and capital of 9,008,000 DA.

What's special about this mill is that it was set in a particularly competitive context, being one of 112 public pasta production units. Today, "SIM" is number one in couscous and pasta production in Algeria, and the world's leading producer of couscous, it exports to 29 countries on all continents, and in 2008 took a 65% share of the couscous and pasta market in Algeria, covering 1/3 of Algeria's flour and semolina requirements and exporting to France, Canada, Lebanon and Belgium.

This major expansion forced the company to convert from a family business to a joint-stock company in 2003.

Figure 16 : SIM Investments



Source: Developed by us according to internal documents

SIM moved from the food industry into other areas, broadening its portfolio of activities to include real estate development, building offices, parking lots, sports complexes and other facilities, and the mineral and sparkling water sector, after acquiring the company from the state in 2000, It then moved into the health sector (the Amina clinic), as well as nutritional agriculture through a partnership with a French company "SOFIPROTEOL", and opened three animal nutrition plants in AIN DEFLA, TNES and MOUZAIA, each producing 100.000 tons per year.

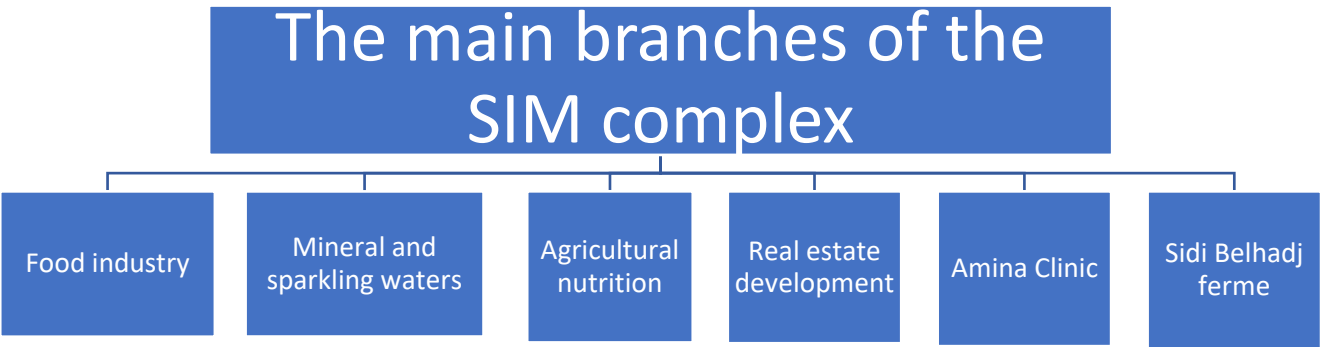
"SOFIPROTEOL", which opened three animal nutrition plants in AIN DEFLA, TNES, MOUZAIA and each plant produces 100,000 tons per year.

In 2002, a loan bank was set up with Jordan, Kuwait and Libya.

In the field of renewable energies, "SIM" is a shareholder in the NIL project, responsible for the construction of two power plants, one for wind turbines and the other for solar energy in TIMIMOUN and El MEGHAIRE.

In 1997, "SIM" built a spare parts business with an Italian company, and in 2005 it signed a partnership contract with a Spanish company for the production of tomato sauce.

Figure 17 : The main branches of the SIM complex



Source: Developed by us according to internal documents

2.1.1 Presentation of SIM

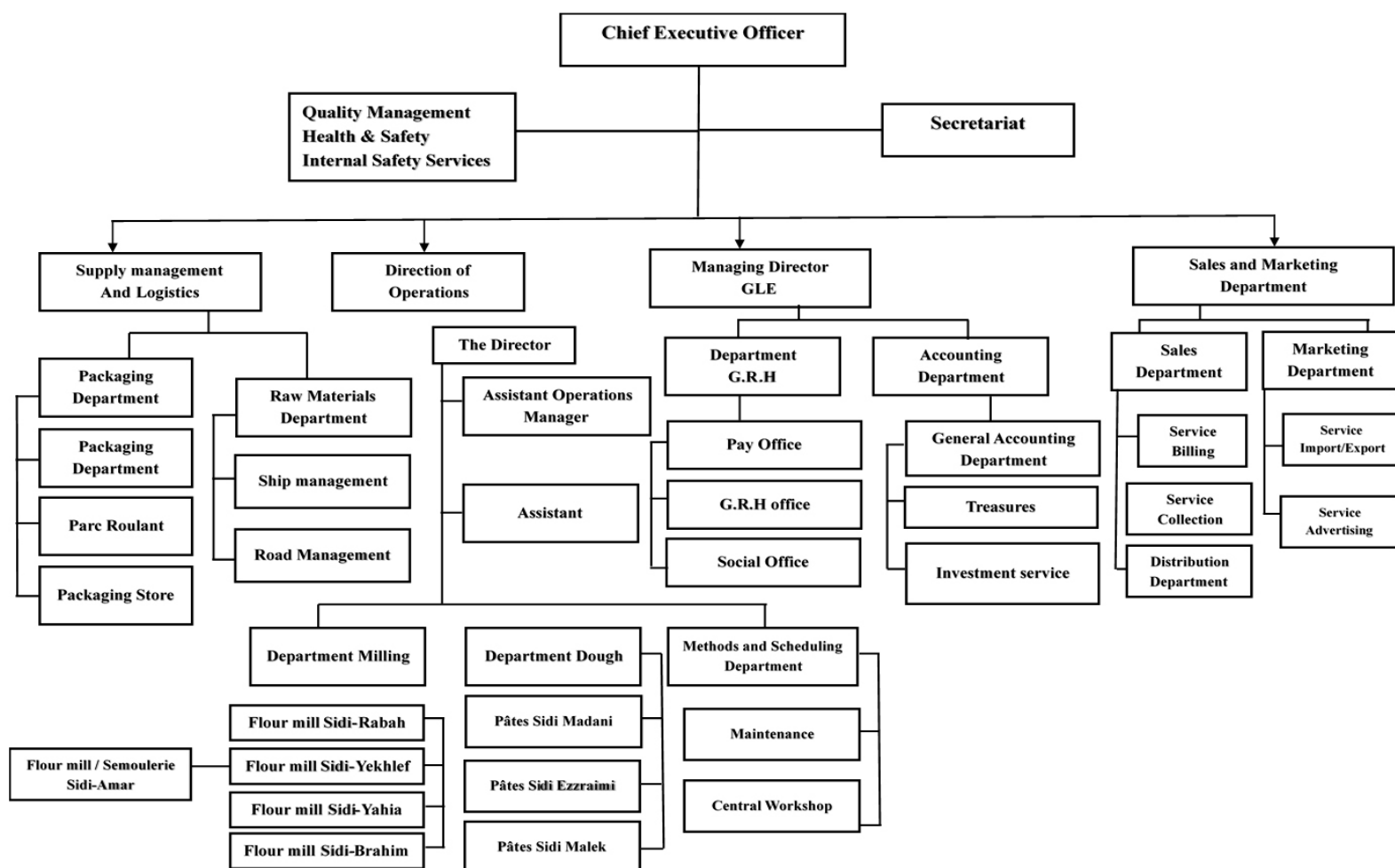
The MITIDJA industrial semolina mill is located in the Blida atlas, in the commune of MOUZAIA in the Ain Romana industrial zone, 14 km from the province of Blida. It was the first private mill in Algeria to process cereals:

- flour: 10,000 lbs/day
- couscous and pasta: 6,500 lbs/day
- agricultural nutrition: 6,000 lbs/day

❖ SIM-Spa organization chart

In the figure below, we present the organization chart of SIM-SPA Company.

Figure 18 : Organizational chart of SIM-SPA company



Source: Developed by us according to Document provided by the Human Resources Department (HRD)

2.1.2 Organizational Structure Analysis

The organizational structure delineates the roles and responsibilities of each department in work organization. This structure comprises:

A) Executive Management

General Director: The highest-ranking individual within the company.

B) General Secretariat: This administrative division specializes in office task preparation, business travel arrangements, and visitor reception, thereby enhancing administrative efficiency.

C) Third Branch

- **2.3.1) Hygiene Department:** Responsible for hygiene management across all departments, ensuring the company's cleanliness.

- **Internal Security Department:** Ensures internal security within the company, operating in rotating groups throughout the week.

- **Quality Management System:** Controls the quality of raw materials and products.

- **Marketing and Commercial Directorate:** This directorate consists of two departments:

- **Commercial Directorate:** Includes the following departments:

- ❖ **Billing Department:** Prepares invoices for products purchased by consumers.

- ❖ **Coverage Department:** Manages payment tracking and follow-up for consumers.

- ❖ **Distribution Department.**

D) Marketing Directorate: A new department in the company, it plays a vital role in product marketing through the following departments:

- ❖ **Export Department.**

- ❖ **Advertising Department.**

This directorate studies:

- ❖ Target markets, communicates with consumers, and promotes products.

- ❖ External market diagnosis and export planning.

E) Financial Department: Facilitates coordination among its departments, prepares financial programs and reports, oversees financial management, and liaises with banks. This directorate includes four departments:

- **Accounting Department:** Coordinates between branches, prepares and analyzes budgets, and implements necessary precautions.
- **Administrative Management Department:** Implements human resource policies, controls daily attendance, manages administrative documents, and handles payroll.
- **Financial Department:** Prepares financial programs and reports, overseeing financial changes.
- **ICT Department:** Manages communication networks and software.

F) Production Directorate: Comprises four departments:

- ❖ **Maintenance Department:** Conducts maintenance tasks for mill and dough equipment, as well as blacksmithing and turning work.
- ❖ **Dough Department:** Produces various types, sizes, and colors of dough, including Sidi El-Zeghaimi, Sidi Malek, and Sidi El-Madani dough.
- ❖ **Grain Department:** Manages semolina and flour production across four mills:
 - Sidi Rabah,
 - Sidi Yakhlef
 - Sidi Yahia
 - Sidi Ibrahim mills.
- ❖ **Central Laboratory:** Conducts physical, chemical, and microbiological analyses on grains and products.

G) Supply and Barn Directorate:

H) Supply and Stock Department: Manages spare parts and packaging stock.

- ❖ **Raw Material Department:** Includes procurement and storage of tools and raw materials.
- ❖ **Barn Department:** Maintains barns, gear, and tools.

2.2 Presentation of PROMASIDOR DJAZAIR Company

2.2.1 Company History of PROMASIDOR DJAZAIR

PROMASIDOR, founded in 1979 by Robert Rose, is a dynamic agro-food company operating globally. With a workforce of 3500 employees, it supplies over 850 million people in 30 African countries. Its forward-thinking vision is to provide quality food products, tailored to local needs and affordable. This approach has allowed PROMASIDOR to stand out on the African continent, where it has become an essential reference. Through its diversified portfolio including powdered milk, beverages, flavored cubes, cooking oils, and margarine, PROMASIDOR is committed to meeting the expectations of African consumers. Building on its African roots, the company has extended its influence by establishing production plants in twenty countries and developing over thirty popular brands. Acting as a local economic engine, PROMASIDOR sources from small-scale farmers, thereby contributing to the development of rural communities and strengthening its trust with African consumers.

2.2.2 Subsidiary in Algeria

The Algerian branch of PROMASIDOR, PROMASIDOR Djazair, was established in 2001 in Algiers with only 11 employees initially. Here are some significant milestones in its development:

- In 2002, the headquarters and factory were installed in the Rouiba industrial zone.
- In 2004, distribution centers were opened in Oran and Sétif.
- In 2010, the headquarters and factory were relocated to the Guerrouaou industrial zone, in Boufarik.
- In 2016, PROMASIDOR Djazair acquired the site and the Le Berbère cheese brand.
- Also in 2016, a partnership was established with the Japanese group AJINOMOTO.
- In 2017, the number of employees exceeded 1000.

2.2.3 Brands in Algeria

PROMASIDOR DJAZAIR offers different brands such as:

- LOYA Milk
- TWISCO Madeleines, Chocolate powder, Spread,
- AMILA Instant powdered drinks,
- Le BERBÈRE (cheese products), and Cowbell.

Figure 19 : Brands of PROMASIDOR in Algeria



Source: Developed by us

2.2.4 Distribution Network

Between 2002 and 2012, PROMASIDOR DJAZAIR significantly expanded its distribution network, increasing from 11 distributors to 25. Today, it has 30 partners ensuring the distribution of its products through over 30,000 sales points nationwide.

2.2.5 Mission

PROMASIDOR DJAZAIR is committed to providing quality products accessible to all Algerians, regardless of brand or product. Their missions are as follows:

- Ensure production processes compliant with international standards.
- Invest in excellence in industrial processes and human resources.
- Offer a range of products that meet the diverse profiles, expectations, and needs of Algerian consumers.
- Ensure consistent product quality at affordable prices.

- Ensure their products are available throughout the Algerian territory.

2.2.6 Vision and Values

At PROMASIDOR DJAZAIR, the vision is clear and ambitious: to aspire to become the leader in the African market by offering quality food products while establishing high standards of production and distribution. This vision is guided by fundamental values, symbolized by the acronym CREST.

- Customer satisfaction is at the core. Customer orientation is central to all actions and decisions.

- Respect is a fundamental principle. Colleagues, customers, consumers, and the environment are treated with fairness and consideration, in line with the values.

- Excellence is the norm. Every task is performed with rigor and professionalism, refusing any compromise with mediocrity.

- Mutual support is valued. Everyone is encouraged to contribute to collective success by bringing their expertise and supporting colleagues.

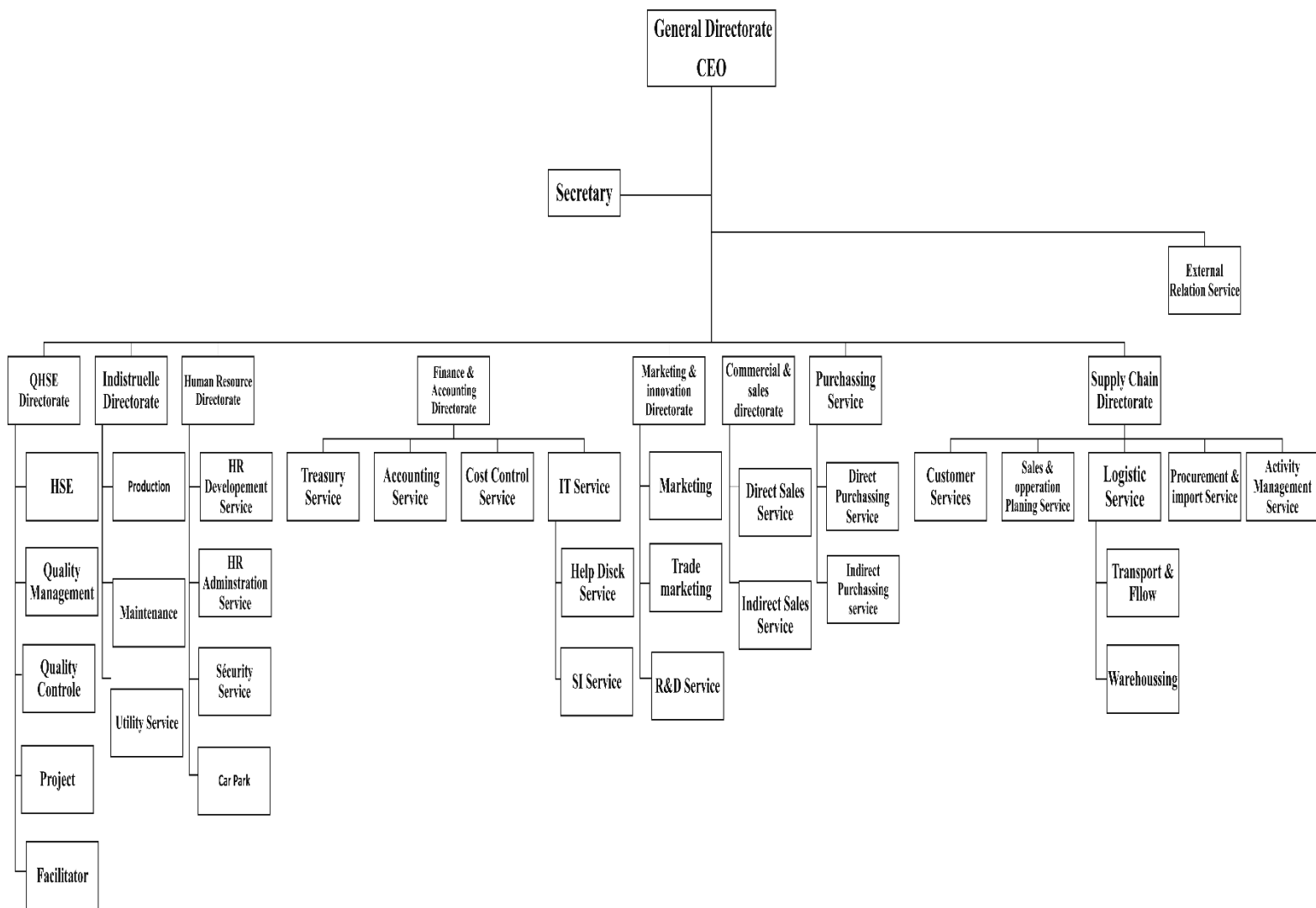
- Trust is fundamental. We strive to earn the trust of stakeholders by acting with integrity, reliability, and honesty.

- Finally, profitability is essential to ensure the sustainability of the business. Maximizing profits while acting responsibly and sustainably is a priority, in the interest of employees and shareholders.

❖ PROMASIDOR organization chart

In the figure below, we present the organization chart of PROMASIDOR DJAZAIR.

Figure 20 : Organizational chart of PROMASIDOR company



Source: Human resource department

In conclusion, this chapter has delved into the methodological underpinnings of our study on management control and operational performance at SIM and PROMASIDOR DJAZAIR. Adopting an interpretivist approach, we navigated the complexities of organizational reality through qualitative inquiry, leveraging interviews and document analysis to capture nuanced insights from senior executives and department heads.

CHAPTER 03:
CASE STUDY

CHAPTER 03: CASE STUDY

In this third chapter, we address several key aspects of our case study.

Section 1: Interview synthesis and analysis

We begin by presenting two tables summarizing the responses obtained during the interviews. The first table summarizes the responses of SIM's department heads, while the second is a company dashboard.

We will then analyze the responses of the managers and department heads, as well as the content of the dashboard. This analysis will be followed by the presentation of a summary table of the responses from Promasidor Djazair's executives and department heads, together with a financial summary of Promasidor Djazair. This financial table will highlight budget forecasts, actual achievements, and any discrepancies between the two. We will analyze the responses from interviews with managers and department heads, and examine the reasons for the discrepancies and their implications for the company.

Section 2: Comparative analysis

We will then carry out a comparative analysis, starting by identifying the points in common between the two companies, then highlighting their divergences. We will compare the responses of managers and department heads occupying similar positions in each company. This section will conclude with a comparative summary and a conclusion based on the results obtained.

Section 3: Discussion and interpretation of results

Finally, we move on to the results discussion and interpretation section, which will synthesize the findings of our study. This part will aim to integrate the various analyses to provide a coherent, in-depth overview of the data collected and the implications for the two companies studied.

Section 01: Interview synthesis and analysis

1.1 The SIM company

Firstly, we will analyze the responses obtained during the interviews conducted with SIM's managers and department heads, focusing on the following axes: understanding of management control, the impact of management control on operational performance, the tools and methods used, the current impact of management control on operational performance, as well as the challenges encountered and possible improvements. We will then analyze the dashboard for December 2023.

Table 3 : Summary table of answers obtained during interviews at the SIM company

SIM Company					
Responsible	M-S Packaging Maintenance Manager	F-A Chief Spare Parts Procurement Officer	R-R Quality Lab Manager	Z-B Human Resources Section Chief	M-K Production Department Manager
Role and Responsibilities	- Ensure maintenance activities - Manage the ERP CAMM (COMPUTER-ASSISTED MAINTENANCE MANAGEMENT) -Manage spare parts orders	-Meet quality/price/delivery needs -Evaluate suppliers -Minimize costs	-Compliance with standards -Management of non-conforming products -Raw materials/packaging control -HACCP implementation	-Human resources management - Recruitment and training -Procedure monitoring -Management and administration of personnel affairs	-Production management -Human resources management for the production department -Inventory management -Reports and communication -Cost management -Ensuring resource efficiency
Definition of management control	Optimize resource management, improve maintenance performance, control costs and deadlines	Ensure quality procurement at the best price and within deadlines	Supervise and ensure product conformity	Monitor, evaluate, and improve organizational performance by aligning activities with strategic objectives.	Optimizing operational efficiency and effectiveness Improving decision-making Monitoring performance Risk management
Tools used	-CAMM ERP -Maintenance reports	- ERP - Comparative tables -Order reports	-Dashboards -Analysis bulletins -Implementation reports -Budgetary control	-Dashboards -Performance indicators -Reports -ERP	-ERP (Enterprise Resource Planning) and CAPM (COMPUTER-ASSISTED PRODUCTION MANAGEMENT) -Dashboards -Gap analysis -Budgeting and forecasting
Impact on performance	Positive impact: Facilitates work, real-time data	Positive impact of ERP: time savings, improved planning/tracking	Positive impacts: process optimization, quality improvement, risk management, informed decision-making	Positive impacts: Improved operational performance, identification of anomalies and risks, implementation of corrective measures	Positive impact: improved operational visibility, identification of inefficiencies and improvement opportunities, support for quick and informed decision-making

performance indicators	-Status of equipment breakdowns -Availability rate (operating rate) for flour and semolina production -Availability rate (operating rate) for flour and semolina production -Performance rate for flour and semolina production -Performance rate for pasta and couscous production	-Product compliance (Wheat, Packaging, Spare Parts) $\geq 90\%$ -Purchasing efficiencies: Regularity of wheat supply, Packaging supply, Spare Parts supply -Spare Parts stockout rate $\geq 10\%$ -Risk management (shortage and stockouts) -Satisfaction rate of needs and requests $\geq 90\%$	- Humidity level -Achievement of laboratory analysis control plan objectives -Reduction of non-conforming product rate among customers -Risk management	-Absenteeism rate -Training effectiveness -Timely availability of HR -Skills evaluation -Recruitment effectiveness -Risk management	-Semolina and flour yield -Non-conforming product rate -Risk management -Production report -Non-conforming product rate for pasta
Challenges and Improvements	ERP CAMM to be improved (developed internally)	No major weaknesses identified	Change resistance	Change resistance Absenteeism Issues in articulating training needs by department heads	Insufficient number of PCs in production workshops Continuous need for CAPM updates Network and connectivity issues Absence of a dedicated management control department Manual daily recording of production quantities and resources used

Source: Developed by us based on interviewees' responses

1.1.1 Understanding Management Control

Managers and department heads have a clear and varied understanding of management control, adapted to their respective fields.

❖ **Maintenance packaging:** Management control is seen as a tool for optimizing resource management and improving maintenance performance by controlling costs and lead times.

❖ **Spare parts supply:** The definition includes ensuring quality supply at the best price and on time.

❖ **Quality laboratory:** Management control focuses on supervising and guaranteeing product conformity.

❖ **Human resources:** It is seen as a means of monitoring, evaluating and improving organizational performance by aligning activities with strategic objectives.

❖ **Production:** The definition includes optimizing operational efficiency, improving decision-making, monitoring performance and managing risks.

1.1.2 Impact of management control on operational performance

The impacts identified are mostly positive, with notable improvements in several operational areas.

❖ **Maintenance:** Management control makes work easier, offering real-time data.

❖ **Spare parts supply:** ERP improves planning and monitoring, resulting in time savings.

❖ **Quality:** Process optimization, better risk management and more informed decision-making.

❖ **Human resources:** Performance monitoring and identification of anomalies enable corrective action to be taken.

❖ **Production:** Better visibility of operations, identification of inefficiencies and support for rapid, informed decision-making.

1.1.3 Tools and methods

The tools and methods used are diverse and adapted to the specific needs of each department.

❖ **Maintenance:** ERP CAMM, maintenance reports.

❖ **Spare parts supply:** ERP, comparative tables, order reports.

- ❖ **Quality:** Dashboards, analysis bulletins, application reports, budget control.
- ❖ **Human Resources:** Dashboards, performance indicators, reports, ERP.
- ❖ **Production:** ERP CAPM, dashboards, variance analysis (inventory), budgeting and forecasting.

1.1.4 Current impact of management control on operational performance

Current impacts are generally positive, contributing to improvements in various areas.

- ❖ **Maintenance:** Facilitates work with real-time data.
- ❖ **Spare parts supply:** Saves time, better planning and monitoring using ERP.
- ❖ **Quality:** Process optimization, quality improvement, risk management, informed decision-making.
- ❖ **Human resources:** Improved organizational performance, identification of anomalies and risks, implementation of corrective measures.
- ❖ **Production:** Better visibility of operations, identification of inefficiencies, support for rapid, informed decision-making.

1.1.5 Challenges and possible improvements

Despite the positive impacts, a number of challenges and areas for improvement have been identified.

- ❖ **Maintenance:** Need to improve the CAMM developed internally.
- ❖ **Spare parts supply:** No major weaknesses identified.
- ❖ **Quality:** Resistance to change among staff.
- ❖ **Human resources:** Resistance to change, absenteeism, problems with department heads expressing training needs.
- ❖ **Production:** Insufficient PCs in production workshops, need for continuous updating of CAPM, network and connection problems, absence of a dedicated management control department, daily manual recording of quantities produced and resources used.

In the next part we will present SIM company dashboard for 2023 then we will analyze it

Table 4 : SIM company dashboard for 2023

Processes	Performance indicators	Calculation formula	Target %	Target achieved	Measurement frequency
Quality control	Achievement of laboratory control plan targets (physicochemical, microbiological)	Number of analyses and controls carried out according to PC Labo Micro	100%	100%	Monthly
		Number of analyses and controls performed according to PC Labo Physic	100%	100%	
	Reduce the NCP rate among customers with a claim	(Number of claims in month N) / (Number of claims in month N-1)	≤ 50 %	48%	
	Risk management	(Number of risks prevented, controlled) / Total identified	≥80%	85%	
Commercial	Customer satisfaction index	Questionnaire results in % (S1) + Letters of commendation (S3) - Customer complaints (S3)	≥90%	92%	Annual
	Commercial efficiency	(Net sales before tax) / (Net sales planned before tax)	100%	100%	Monthly
	Export sales efficiency	(Net sales before tax) / (Estimated net sales before tax)	100%	100%	Annual

	Average delivery time for product/service	(Number of on-time deliveries) / (Number of compliant deliveries - Number of returns - Number of missed deadlines)	100%	100%	On each delivery
	Risk management	(Number of risks prevented, controlled) / Total identified	≥ 80%	86%	Monthly
Finance and accounting	Activity financing costs	Financial expenses / EBITDA	≥ 80%	82%	Annual
	Conformity	Absence of auditor's reservations	≥ 90%	91%	Annual
	Risk management	(Number of risks prevented, controlled) / Total identified	≥ 80%	85%	Monthly
Production of pasta and couscous	Production reports	Quantity produced /Quantity used			Monthly
	PC	PC	≥ 96%	97%	
	PL	PL	≥ 92%	96%	
	CC	CC	≥ 92%	92%	
	Rate of non-conforming products	Quantity of non-compliant products / Quantity produced	≤ 5 %	4.5%	
	Evaluation of the non-conforming product rate	Quantity of non-compliant product in month N/ Quantity of non-compliant product in month N-1	≤ 80 %	78%	

	Risk management		(Number of risks prevented, controlled) / Total identified	≥ 80%	85%	
Maintenance	Availability rate (operating rate) Flour and semolina production		1 - ((Programmed Maint. stop time +Non-programmed Maint. stop time) / (normal working time))	≥ 98.38%	98.5%	Monthly
	Availability rate Pasta and couscous production			≥ 96.67%	96.67%	
	Performance rate Flour and semolina production		Unscheduled Maint downtime / Normal working time	≥ 99.6%	99.7%	
	Performance rate Pasta and couscous production			≥ 99.3%	99.4%	
	Risk management		(Number of risks prevented, controlled) / Total identified	≥ 80%	85%	
Supply	Product conformity purchased	Wheat	1 - [Rate of non-conforming products valued before tax (wheat, packaging, PDR) /Purchased products valued before tax].	≥ 95%	96%	Monthly
		Packaging		≥ 99%	99%	
		Spare parts		≥ 99%	99%	
	Efficiency (Purchasing)	Wheat	Cost of materials purchased / Budgeted cost	≤ 90 %	90%	
		Packaging				
		Spare parts				

	Regularity of supply Wheat	Stock levels (soft wheat, durum wheat) / Daily production capacity	100%	100%	Monthly
	Out of stock spare parts	Number of unsatisfied orders/total number of orders	$\leq 10 \%$	8%	
	Risk management	(Number of risks prevented, controlled) / Total identified	$\geq 80\%$	95%	
Production de farine et semoule	Semolina yield	(Finished products + by-products - waste from pasta and couscous production) /Wheat processing	$\geq 102\%$	103%	Monthly
	Flour yield	(Finished products + by-products) / Wheat for processing	$\geq 101\%$	101.5%	
	Non-compliant product rate	Quantity of non-compliant product / Quantity produced	$\leq 0.5 \%$	0.4%	
	Risk management	Number of risks prevented, controlled / Total identified	$\geq 80\%$	87%	
Logistics and transport	Order satisfaction rate	Number of orders placed / Number of orders received	$\geq 90\%$	91%	Monthly
	Order satisfaction rate	Number of jobs completed efficiently / Number of job requests received	$\geq 90\%$	91%	
	On-time delivery rates	Number of on-time deliveries / Total number of deliveries	$\geq 95\%$	95%	

	Traffic violation rate	Number of violations / Number of drivers	0%	0%	
	Risk management	Number of risks prevented, controlled / Total identified	≥ 80%	85%	

Source: developed and translated from French into English by us according to internal documents

1.2 The analyze of SIM company dashboard for 2023

1.2.1 Quality control

❖ Achievement of laboratory control plan objectives (physicochemical and microbiological)

Indicators:

Number of analyses and controls performed according to PC Labo Micro = 100%.

Number of analyses and controls performed according to PC Labo Physic = 100%.

Quality control objectives were fully achieved, indicating full compliance with the control plans defined for physicochemical and microbiological analyses.

❖ Reduction in non-compliant parts among customers with complaints

Indicator:

(Number of complaints in month N) / (Number of complaints in month N-1) = 48%.

The complaints rate fell by 48% compared with the previous month, indicating a significant improvement in product quality.

❖ Risk management

Indicator:

(Number of prevented risks controlled) / Total identified = 85%

A risk control rate of 95%, above the target of 80%, demonstrates proactive and effective risk management.

1.2.2 Commercial

❖ Customer satisfaction index

Indicator:

Questionnaire results in % (S1) + Congratulatory letters (S3) - Customer complaints (S3) = 92%.

Customer satisfaction reached 92%, exceeding the target of 90%, reflecting good customer perception of the company's services and products.

❖ Sales efficiency

Indicator:

$$\text{(Actual sales before tax) / (Planned sales before tax): 100\%}.$$

Planned sales targets were met at 100%, showing that sales forecasts were fully achieved.

❖ Export sales efficiency

Indicator:

$$\text{(Actual sales before tax) / (Planned sales before tax) = 100\%}.$$

Export sales efficiency is also 100%, demonstrating successful international sales.

❖ Average product/service delivery time

Indicator:

$$\text{(Number of on-time deliveries) / (Number of compliant deliveries - Number of returns - Number of missed deadlines) = 100\%}.$$

Delivery punctuality is perfect, with all deliveries made on time, which is crucial for customer satisfaction.

❖ Risk management

Indicator:

$$\text{(Number of prevented risks under control) / Total identified = 86\%}.$$

Risk control at 86%, well above the 80% target, suggests effective, proactive risk management.

1.2.3 Finance and Accounting

❖ Business financing costs

Indicator:

Financial expenses / EBITDA: 82%

Financing costs are under control at 82%, slightly above the 80% target, indicating prudent financial management.

❖ Compliance

Indicator:

Absence of reservations by the statutory auditor = 91%

A compliance rate of 91% with no major reservations from the statutory auditors demonstrates transparency and financial rigor.

1.2.4 Pasta and Couscous Production

❖ Production report (PC, PL, CC)

Indicators:

Short pasta = 97% (target $\geq$ 96%)

Long pasta = 96% (target $\geq$ 92%)

Couscous = 92% (target $\geq$ 92%)

Production rates for pasta, semolina and couscous are all above or equal to set targets, indicating efficient production in line with expectations.

❖ Rate of non-compliant products

Indicator:

Quantity of non-conforming product / Quantity produced = 4.5%.

The rate of non-conforming products is 4.5%, which is below the 5% target, indicating good production quality.

❖ Evaluation of the rate of non-conforming product (month by month)

Indicator:

$$\text{Quantity of non-conforming product in month N} / \text{Quantity of non-conforming product in month N-1} = 78\%.$$

A 22% reduction in non-conforming products from one month to the next, demonstrating a continuous improvement in quality.

1.2.5 Maintenance

❖ Availability rate (flour and semolina production)

Indicator:

$$1 - ((\text{Scheduled Maintenance downtime} + \text{Unscheduled Maintenance downtime}) / \text{Normal working time}) = 98.5\%$$

An availability rate of 98.5%, higher than the target of 98.38%, demonstrates excellent management of scheduled and unscheduled maintenance, ensuring optimum equipment availability.

❖ Availability rate (pasta and couscous production)

Indicator:

$$1 - ((\text{Scheduled maintenance downtime} + \text{Unscheduled maintenance downtime}) / \text{Normal working time}) = 96.67\%$$

The availability rate is exactly on target at 96.67%, indicating effective maintenance management for these production lines too.

❖ **Performance rate (flour and semolina production)**

Indicator:

Unscheduled maintenance downtime / Normal working time = 99.7%.

A performance rate of 99.7%, exceeding the target of 99.6%, indicates that unscheduled downtime is minimized, which is essential for maintaining continuous, efficient production.

❖ **Performance rate (pasta and couscous production)**

Indicator:

Unscheduled maintenance downtime / Normal working time = 99.4%

The performance rate of 99.4%, slightly above the target of 99.3%, shows that pasta and couscous production is also maintained at high levels of efficiency, with little unscheduled downtime.

❖ **Risk management**

Indicator:

(Number of prevented risks controlled) / Total identified = 85%.

Risk control reached 85%, well above the 80% target, reflecting proactive and effective risk management in the maintenance field.

1.2.6 Procurement

❖ **Conformity of purchased product (wheat, packaging, PDR)**

Indicators:

Wheat = 96% (target ≥ 95%)

Packaging = 99% (target ≥ 99%)

PDR = 99% (target ≥ 99%)

Purchased products meet quality standards with high compliance rates, ensuring consistent quality of raw materials.

❖ Purchasing efficiency (wheat)

$$\text{Cost of raw materials purchased} / \text{Budgeted cost} = 90\%.$$

Raw material purchasing costs are effectively controlled, corresponding exactly to the budget.

❖ Regularity of supply (wheat)

Indicator:

$$\text{Stock levels (soft wheat, durum wheat)} / \text{Daily production capacity} = 100\%.$$

Stock levels are perfectly aligned with daily production capacity, ensuring continuous production without interruptions due to stock-outs.

❖ Out-of-stock PDR (Spare Parts)

Indicator:

$$\text{Number of unfulfilled orders} / \text{Total number of orders} = 8\%.$$

The out-of-stock rate for spare parts is 8%, below the target of 10%, indicating effective inventory and order management.

❖ Risk management

Indicator:

$$(\text{Number of prevented risks controlled}) / \text{Total identified} = 80\%.$$

A risk control rate of 80%, exactly meeting the target, shows proactive risk management in the procurement process.

1.2.7 Flour and Semolina Production

❖ Semolina yield

Indicator:

$$(\text{Finished products} + \text{by-products} - \text{waste}) / \text{Wheat used} = 103\%.$$

A yield of 103% compared with the target of 102% shows a very efficient use of raw materials to produce semolina, with minimal losses and maximum extraction of finished products.

❖ **Flour yield**

Indicator:

$$\text{(Finished products + by-products) / Wheat used} = 101.5$$

A yield of 101.5%, exceeding the target of 101%, reflects a similar efficiency in flour production, indicating that the company is maximizing production in relation to the raw materials used.

❖ **Rate of non-conforming products**

Indicator:

$$\text{Quantity of non-conforming product / Quantity produced} = 0.4\%$$

A non-conformity rate of just 0.4% (target $\leq 0.5\%$) shows that the quality of finished products is maintained at a very high level, with very few products rejected for non-conformity.

❖ **Risk management**

Indicator:

$$\text{Number of prevented risks controlled / Total identified} = 87\%.$$

Risk control is 87%, well above the 80% target, demonstrating proactive and effective risk management in the flour and semolina production process.

1.3 The PROMASIDOR DJAZAIR company

We are now going to analyze the responses obtained during our interviews with PROMASIDOR DJAZAIR's managers and department heads. This analysis will focus on the following areas: understanding management control, its impact on operational

performance, the tools and methods used, the current impact of management control on operational performance, as well as the challenges encountered and possible improvements.

Next, we will analyze PROMASIDOR DJAZAIR's Monthly Financial Summary for May 2024, which presents the differences between actual performance, budget forecasts and results for May 2023.

Table 5 : Summary table of responses obtained during interviews at PROMASIDOR DJAZAIR

Company PROMASIDOR DJAZAIR							
Responsible	Z-B Industrial management control team leader	D-M Marketing department manager	S-B Quality department manager	Y-D Accounting manager since 2021.	M-Z Accounting manager	H-K Head of management control department	R-H Production Department Manager
Role and Responsibilities	Tracking and analyzing all production-related expenses, from purchase orders to sales of finished products	Marketing strategies Advertising campaign management Market analysis	Quality assurance Implementation of quality standards Internal audits	Maintain financial equilibrium, monitor financial results via Business Central ERP.	Bookkeeping Entry of daily accounting transactions Monitoring of fixed assets - Analysis of accounts Monthly and annual closing work	Group reporting Preparation of financial statements Budgets Variance identification and analysis	Supervision of production operations Optimization of manufacturing processes Production team management Production team coordination
Definition of management control	Steers production performance by analyzing all costs and ensuring compliance with procedures. Provides reliable data for decision-making.	Monitoring and evaluating marketing campaign performance Managing advertising budgets	Monitoring and improving product and process quality Non-conformity management	Management control is an essential process that monitors and improves company performance by providing accurate financial data.	Clear visualization of the financial situation Adjustments to improve performance	Monitoring and optimizing costs through variance analysis	Monitoring and improving the efficiency and productivity of production operations

Used Tools	Gap analysis Dashboards Management information systems (ERP)	Tableaux de bord marketing Systèmes CRM	Quality audits Dashboard	Business Central ERP. TCR Accounting	Financial statements Balance sheet TCR ERP	Dashboards ERP	ERP Performance dashboards Profitability analysis
Impact on performance	Positive impact: Reduce costs and improve profitability through accurate analysis and informed decisions	Positive impact Optimization of marketing spend Improved ROI Better allocation of marketing resources	Positive impacts: Reduction of non-conformities Improved customer satisfaction Optimization of quality processes	Positive impacts management control contributes to improving the company's operational performance	Positive impact Improved financial performance thanks to separation of income and expenses, and consequently improved operating performance	Positive impact Improved financial and operational performance through better separation of revenues and expenses. Identified shortcomings and implemented corrective measures	Positive impact Identifying inefficiencies Improving resource utilization Optimizing production processes
Performance indicators	Production efficiency, waste reduction, overconsumption management Budget variances	Campaign ROI Conversion rates Cost per acquisition (CPA)	Non-conformity rate Product return rate Customer satisfaction	Financial results, purchasing costs.	Working capital Working capital requirement Cash flow	Rate of return Production costs Budget variances	Synthetic yield rate Scrap rate Production cycle time Equipment availability rate

Challenges and Improvements	Data accuracy Information systems alignment Variance in raw material characteristics, particularly in cheese production.	Measure campaign effectiveness Adjust strategies in real time	Non-conformity management Continuous improvement of quality processes	Financial risks such as bank credit risk and unpaid invoices.	Evaluating a huge data flow	Information systems Resistance to change	Management of machine breakdowns Variability of raw material quality Optimization of production lead times
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Source: Developed by ourselves based on interviewees' responses

1.3.1 Management control comprehension

PROMASIDOR DJAZAIR managers and department heads have a clear and thorough understanding of management control, tailored to their specific roles.

❖ **Industrial management control team leader:** Sees management control as steering production performance by analyzing all costs and ensuring compliance with procedures, providing reliable data for decision-making.

❖ **Marketing department manager:** Sees management control as a means of monitoring and evaluating the performance of marketing campaigns, and managing advertising budgets.

❖ **Quality department manager:** Management control focuses on monitoring and improving product and process quality, as well as managing non-conformances.

❖ **Accounting managers:** They see management control as an essential process for monitoring and improving the company's financial performance, providing accurate data and making it easier to visualize the financial situation.

❖ **Management control department heads:** Focus on monitoring and optimizing costs through variance analysis.

❖ **Production department manager:** Considers management control as monitoring and improving the efficiency and productivity of production operations

1.3.2 Impact of management control on operational performance

The impacts identified are mostly positive, with notable improvements in several operational areas.

❖ **Production:** Reduced costs and improved profitability thanks to accurate analyses and informed decisions.

❖ **Marketing:** Optimization of marketing expenditure, improved return on investment (ROI) and better allocation of marketing resources.

❖ **Quality:** Reduce non-conformities, improve customer satisfaction and optimize quality processes.

❖ **Finance and accounting:** Improved financial performance thanks to the separation of expenses and revenues, contributing to better operational performance.

❖ **Management control:** identify inefficiencies, Improved financial and operational performance through better separation of revenues and expenses.

- ❖ **Industrial management control:** reduce costs and improve profitability through accurate analysis and informed decisions.

1.3.3 Tools and methods

The tools and methods used are diverse and adapted to the specific needs of each department.

- ❖ **Management control:** use of dashboards, ERP, variance analysis, budgeting.
- ❖ **Industrial management control:** Variance analysis, dashboards, management information systems (ERP).
- ❖ **Marketing:** Marketing dashboards, ERP CRM systems.
- ❖ **Quality:** quality audits, dashboards.
- ❖ **Finance and accounting:** Business Central ERP, TCR, accounting.
- ❖ **Production:** Performance dashboards, ERP, profitability analyses.

1.3.4 Current impact of management control on operational performance

The current impact of management control on operational performance is largely positive. Indicators show constant improvements and compliance with targets in almost all departments. Real-time data and rigorous analysis enable continuous optimization of processes and resources.

- ❖ **Production:** Increased efficiency with reduced costs and improved profitability.
- ❖ **Marketing:** Better allocation of resources and optimization of advertising campaigns.
- ❖ **Quality:** Continuous improvement of quality processes and increased customer satisfaction.
- ❖ **Finance:** Improved financial performance through rigorous cost and resource management.
- ❖ **Industrial management control:** Positive impact on cost reduction, improved profitability, customer satisfaction and efficient resource management.
- ❖ **Management control:** Positive impact on cost reduction, improved profitability, customer satisfaction, and efficient resource management.

1.3.5 Challenges and possible improvements

Despite the positive performance, a number of challenges and areas for improvement remain.

Industrial management control: Need to improve data accuracy and information system alignment, raw material variability.

- ❖ **Marketing:** Measuring campaign effectiveness and adjusting strategies in real time.
- ❖ **Quality:** Non-conformity management and continuous improvement of quality processes.
- ❖ **Finance and accounting:** Financial risks, such as bank credit risk and unpaid invoices, and evaluation of huge data flows.
- ❖ **Management control:** Resistance to change linked to information systems.
- ❖ **Production:** Management of machine breakdowns, variability of raw material quality, optimization of production lead times.

Table 6 : Promasidor Monthly Financial Summary - May 2024: Comparison of Actual Performance with Budgeted Forecasts and May 2023 Results

Amounts are in USD KDA (000)							
Q1						% Change	
	2024 Actual	2024 Budget	2023 Actual	Actual-Budget (Gap)	YoY (2023-2024)	Actual-Budget	YOY
Average USD/DZD Exchange Rate	146.3	153.6	163.6				
Gross Sales-Local	29.447	33.681	30.141	4.234	693	-12.6%	-2.3%
Gross Sales - Export	0	0	0	0	0	0.0%	0.0%
Gross Sales - Intercompany	0	0	0	0	0	0.0%	0.0%
Gross sales	29.447	33.681	30.141	4.234	693	-12.6%	-2.3%
Cost of goods Sold-Standard (Material-only)	17.739	21.069	18.594	3.331	855	-15.8%	-4.6%
Naked Margin	11.709	12.612	11.547	903	162	-7.2%	1.4%
Sales Discounts	854	438	584	415	269	94.8%	46.1%
Other Cost of Goods Sold and Other Income	890	1002	1022	112	131	-11.2	-12.9%
Advertising and Promotion	546	668	749	123	204	-18.4%	-27.2%
Operating Expenditure before FX Gain/Loss	4.085	4.993	4.411	909	326	-18.2%	-7.4%
Foreign Currency Gain/Loss	7	0	29	7	36	0.0%	-122.9%
EBITDA	5.341	5.510	4.751	169	590	-3.1%	12.4%
Depreciation, Amortization & Impairment	922	1.236	1.504	314	582	-25.4%	-38.7%
EBIT	4.419	4.274	3.247	145	1.172	3.4%	36.1%
Interest	531	638	611	107	80	-16.8%	-13.1%
Profit Before Tax	3.888	3.636	2.636	253	1.252	6.9%	47.5%

Income Tax	1.166	1.123	968	43	198	3.8%	20.5%
Profit After Tax	2.722	2.512	1.668	210	1.054	8.3%	63.2%
Effective Tax Rate	30.0%	30.9%	36.7%				
% Of Gross Sales							
Naked Margin %	39.8%	37.4%	38.3%				
Sales Discounts %	-2.9%	-1.3%	-1.9%				
Other Cost of Goods Sold and other Income %	-3.0%	-3.0%	-3.4%				
Advertising and Promotion%	-1.9%	-2.0%	-2.5%				
Operating Expenditure before FX Gain/Loss %	-13.9%	-14.8	-14.6%				
Foreign Currency Gain/Loss %	0.0%	0.0%	-0.1%				
EBITDA%	18.1%	16.4%	15.8%				
Depreciation, Amortization & Impairment %	-3.1%	-3.7%	-5.0%				
EBIT %	15.0%	12.7%	10.8%				
PAT %	9.2%	7.5%	5.5%				

Source: Developed by us on the basis of an Excel file provided by the head of the management control department.

This table provides an overview of PROMASIDOR DJAZAIR's monthly financial performance for May 2024, compared with budget forecasts and results for May 2023. It covers local gross sales, cost of goods sold, sales discounts, and production-related revenues and costs.

It also includes advertising expenses, operating expenses, depreciation charges and interest. Percentage variations against budget and year-on-year are presented for a clear analysis of variances and company financial trends.

To better understand this table, we'll start by defining the concepts mentioned, then move on to a detailed analysis of the variances observed.

1.4 Concepts Mentioned in the Table

❖ **Gross Sales-Local:** Represents the total sales made in the local market before deductions.

❖ **Cost of Goods Sold-Standard (Material-only):** Represents the direct cost of raw materials used in production.

❖ **Sales Discounts:** Reductions granted on selling prices.

❖ **Other Cost of Goods Sold and Other Income:** Includes various costs related to production and ancillary revenues.

❖ **Advertising and Promotion:** Expenses for promoting products.

❖ **Operating Expenditure before FX Gain/Loss:** Operating expenditure before foreign exchange gain/loss. Total expenses required for the company's regular operations.

❖ **Depreciation, Amortization & Impairment:** Reduction in the value of assets over their useful life.

❖ **Interest:** Financial charges related to loans.

❖ **Profit Before Tax:** Net result before tax deduction.

❖ **Income Tax:** Taxes on the company's profits.

❖ **Profit After Tax:** Net result after tax deduction.

❖ **Effective Tax Rate:** Percentage of profits paid in taxes.

❖ **EBIT:** Earnings before interest and taxes. Indicator of operational performance.

1.5 Analysis of Discrepancies

❖ **Gross Sales-Local:** Local sales dropped by 12.6% compared to projections, mainly due to lower-than-expected sales and significant discounts on the newly launched "Cowbel" product. This led to a reduction in revenue, affecting the total local gross sales.

❖ **Cost of Goods Sold-Standard (Material-only):** The cost of raw materials decreased by 15.8% compared to projections due to lower purchase prices and changes in the production recipe. This helped reduce production costs, thereby improving the gross margin.

❖ **Sales Discounts:** Discounts increased by 94.8%, attributed to heavy reductions on "Cowbel." This strategy aimed to boost the sales volume of the relaunched product, increasing sales volume but reducing profit margin.

❖ **Other Cost of Goods Sold and Other Income:** A reduction of 11.2% was observed due to a technical issue with a machine that dispensed excessive quantities, which has now been resolved by an engineer. This caused temporary additional costs but has been corrected.

➤ **Our Proposal**

To ensure optimal performance and extend the lifespan of the machinery, it is suggested to establish a quarterly preventive maintenance program. This initiative aims to prevent mechanical failures, such as those recently encountered, and to maintain optimal operation of the equipment. Moreover, it is crucial to provide regular training to employees on the proper use of the machines and adherence to safety standards to reduce the risk of errors and breakdowns.

It is also recommended to schedule an annual corrective maintenance to address issues that are not covered by preventive maintenance. This process is essential to keep the machines in optimal working condition and to increase their long-term profitability.

❖ **Advertising and Promotion:** Advertising expenses decreased by 18.4%, primarily due to fluctuations in the exchange rate between the US dollar and the Algerian dinar.

❖ **Operating Expenditure before FX Gain/Loss:** Operating expenses fell by 18.2%, impacted by labor outsourcing and exchange rate effects. This helped reduce overall operating costs.

❖ **Depreciation, Amortization & Impairment:** A decrease of 25.4% is due to the sale of certain machines and the postponement of the purchase of new machines. This reduced depreciation and impairment charges.

❖ **Interest:** Interest expenses decreased by 16.8%, due to loans not taken out following the postponement of new machine purchases. This led to a reduction in financial charges.

These discrepancies highlight the importance of cost management, pricing strategy, and operational management to maintain profitability in a dynamic business environment.

Section 2: Comparative Analysis

2.1 Commonalities and Differences between SIM and PROMASIDOR DJAZAIR

2.1.1 Commonalities

- ❖ **Sector of Activity:** Both SIM and Promasidor Djazair operate in the agri-food sector, producing essential consumer goods.
- ❖ **Target Market:** Both companies primarily target the Algerian market, offering basic and widely consumed food products.

Product Portfolio: SIM specializes in the production of semolina, pasta, and other cereal products, while Promasidor Djazair offers dairy products and beverages. Thus, both companies offer a diversified range of food products.

Production Chain: SIM and Promasidor Djazair have modern industrial facilities for processing and producing their products, ensuring consistent quality and high production volumes.

Distribution: Both companies have extensive distribution networks to ensure the availability of their products throughout the country, reaching a wide consumer base.

2.1.2 Differences

❖ Origin and History

SIM is a well-established Algerian company with a long history in cereal product processing.

Promasidor Djazair is a subsidiary of Promasidor Holdings, a pan-African group, with a focus on introducing international products to the Algerian market.

❖ Marketing Strategies

SIM emphasizes staple and essential products, often marketed for their quality and nutritional value.

Promasidor Djazair often employs marketing strategies focused on innovation and product diversification, with a strong emphasis on branding and promotional campaigns for dairy products.

❖ Ownership Structure

SIM is a local Algerian company with a potentially more concentrated focus on the domestic market.

Promasidor Djazair is part of a multinational group, which can influence its overall strategy and local operations.

❖ Management Control Department

SIM does not have a dedicated management control department.

Promasidor Djazair has a management control department responsible for financial oversight and operational performance.

❖ **Management and Reporting Tools**

SIM uses dashboards with performance indicators (KPIs) and an internally developed ERP system for monitoring its operations and decision-making.

Promasidor Djazair uses financial dashboards, a multinational integrated ERP across all Promasidor subsidiaries, and applies budgeting and variance analysis techniques.

❖ **Subsidies and Raw Materials**

SIM benefits from state subsidies for its products, and the quantities of raw materials are predetermined, which influences its operational model.

Promasidor Djazair does not receive similar state subsidies and manages its supplies independently.

❖ **Budgeting and Forecasting Strategies**

SIM does not practice budgeting or financial forecasting due to the nature of its subsidies and predetermined raw material quantities. The company focuses on economies of scale, profit maximization, production, and cost reduction.

Promasidor Djazair uses budgeting and variance analysis to plan and control its financial operations, relying on a broad international database.

❖ **Economic Model and Objectives**

SIM seeks to maximize profits and production while reducing costs without using formal budgeting processes.

Promasidor Djazair uses sophisticated financial management tools to optimize its operations and ensure profitability through detailed forecasts and analyses.

❖ **ERP System**

SIM uses an internally developed ERP system tailored specifically to its needs.

Promasidor Djazair uses a multinational ERP that connects all Promasidor subsidiaries, allowing integrated management and comparative analysis between different entities in the group.

❖ **Support and Database**

SIM primarily relies on its internal resources and state support for its operations.

Promasidor Djazair benefits from a large international database and the support of the Promasidor group for its analyses and strategic decisions.

2.2 Comparative Analysis of Responses from Department Heads of PROMASIDOR DJAZAIR and SIM

The following analysis focuses on the responses from department heads holding similar functions in each company and is structured around five main axes:

- **Understanding of Management Control**
- **Impact of Management Control on Operational Performance**
- **Tools and Methods Used**
- **Current Impact of Management Control on Operational Performance**
- **Challenges and Possible Improvements**

Additionally, we have included an analysis of department heads holding different functions to provide a more comprehensive view of the impact of management control on operational performance within these two companies. This approach allows us to draw relevant conclusions.

2.2.1 Comparative Analysis of Responses from Department Heads with Similar Functions

Table 7 : Comparative Analysis Table of Responses from Department Heads with Similar Functions

Production department			
Axes \ Company	SIM	PROMASIDOR DJAZAIR	COMPARISON
Management control understanding	Optimize operational effectiveness and efficiency, improve decision-making, monitor performance, manage risk.	Optimization of manufacturing processes, management of production teams.	SIM: Sees management control as a tool to optimize operational efficiency, monitor performance, and manage risks. PROMASIDOR DJAZAIR: Perceives management control primarily as a means to optimize manufacturing processes and manage teams.
Impact of Management Control on Operational Performance.	Improvement of operational efficiency and effectiveness, more informed decision-making.	Optimization of manufacturing processes and improvement of team management.	SIM emphasizes improving overall efficiency and decision-making, while PROMASIDOR focuses on optimizing specific processes and managing teams.
Used Tools	Use of ERP CAPD, dashboards, and variance analysis (physical inventory).	Use of ERP, performance dashboards, profitability analyses, and budget variance analysis.	Both companies use ERPs and dashboards, SIM utilizes CAPD and focuses on physical inventory and forecasting, while PROMASIDOR places particular emphasis on profitability analyses, and budget gap analyzes
Current Impact of Management Control on Operational Performance	Better visibility of operations, identification of inefficiencies, support for quick and informed decision-making.	Improvement of operational performance through process optimization and team management and reduction of costs by the budget gap analysis	SIM benefits from better visibility and identification of inefficiencies, thereby supporting quick and informed decision-making, while PROMASIDOR DJAZAIR observes a general improvement in operational performance through process optimization and efficient team management, as well as cost reduction through budget variance analysis.
Challenges and Improvements	Lack of PCs in workshops, need for continuous updates of the MRP, network issues, absence of a dedicated management control department, and manual recording of quantities produced and resources used.	Management of machine breakdowns, variability in the quality of raw materials, optimization of production lead times.	SIM faces technical and structural challenges, such as a lack of PCs and network issues, while PROMASIDOR focuses on operational aspects such as managing breakdowns and raw material quality.

Quality Department			
Axes \ Company	SIM	PROMASIDOR DJAZAIR	COMPARISON
Management control understanding	Focuses on supervising and ensuring product compliance.	Focuses on monitoring and improving the quality of products and processes, including the management of non-conformities.	At SIM, management control is primarily focused on product compliance, while at PROMASIDOR, it also encompasses the management of non-conformities and continuous process improvement
Impact of Management Control on Operational Performance.	Improvement of product compliance	Reduction of non-conformities, improvement of customer satisfaction, optimization of quality processes	SIM primarily observes an improvement in product compliance, while PROMASIDOR reports broader impacts including the reduction of non-conformities, improvement in customer satisfaction, and optimization of quality processes.
Used Tools	Dashboards, analysis reports, application reports, budget control	Quality audits, dashboard	Both companies use dashboards, but SIM focuses more on analysis reports and application reports, while PROMASIDOR adheres to standards and conducts quality audits.
Current Impact of Management Control on Operational Performance	Improvement of product compliance, effective risk management	Overall improvement of product and process quality, reduction of non-conformities, increased customer satisfaction	SIM focuses on improving product compliance and risk management, while PROMASIDOR reports a more holistic improvement in product and process quality, with a reduction in non-conformities and increased customer satisfaction.
Challenges and Improvements	Resistance to change	Management of non-conformities, continuous improvement of quality processes.	SIM identifies resistance to change as the main challenge, while PROMASIDOR focuses on managing non-conformities and the continuous improvement of quality processes.

Source: Compiled by us based on the interviewees' responses.

2.2.2 Analysis of Different Department Heads

2.2.2.1 Understanding of Management Control

A) SIM company

- ❖ **Maintenance Manager:** Optimize resource management, improve maintenance performance, control costs/timelines.
- ❖ **Supply Manager:** Ensure quality supply at the best price/timeline.
- ❖ **HR Section Chief:** Monitor, evaluate, and improve organizational performance by aligning activities with strategic objectives.

B) PROMASIDOR DJAZAIR company

- ❖ **Industrial Management Control Team Leader:** Drive production performance by analyzing all costs and ensuring adherence to procedures.
- ❖ **Marketing Department Head:** Monitor and evaluate the performance of marketing campaigns, manage advertising budgets.
- ❖ **Accounting Officer:** Monitor and improve financial performance.
- ❖ **Accounting Officer:** Provide a clear view of the financial situation, make adjustments to improve performance.

C) Comparison

At SIM, the understanding of management control is oriented towards resource optimization and compliance, with a particular focus on maintenance and supply management. PROMASIDOR, on the other hand, places greater emphasis on cost analysis, process quality, and financial performance.

2.2.2.2 Impact of Management Control on Operational Performance

A) SIM company

- ❖ **Maintenance Manager:** Positive impact, facilitating work through the provision of real-time data.
- ❖ **Supply Manager:** Positive impact of ERP: time-saving, better planning and tracking.

❖ **HR Section Chief:** Positive impacts: improvement in operational performance, identification of anomalies and risks, implementation of corrective measures.

B) PROMASIDOR DJAZAIR company

❖ **Industrial Management Control Team Leader:** Positive impact: cost reduction and profitability improvement through precise analyses and informed decisions.

❖ **Marketing Department Head:** Positive impact: optimization of marketing expenses, improvement in ROI, better allocation of marketing resources.

❖ **Accounting Officer:** Positive impact: management control contributes to improving the company's operational performance.

❖ **Accounting Officer:** Positive impact: improvement in financial performance through the separation of expenses and revenues, consequently improving operational performance.

❖ **Management control Head:** Positive impact: Improved financial and operational performance through better separation of revenues and expenses. Identified shortcomings and implemented corrective measures

C) Comparison

❖ **SIM:** Management control is seen as a crucial tool for improving resource management, maintenance, and compliance, with direct impacts on operational performance via real-time data and better planning.

❖ **PROMASIDOR DJAZAIR:** Management control has a systematically positive impact on cost reduction, profitability improvement, customer satisfaction, and financial performance. Different departments integrate management control into their decision-making processes to optimize resources and outcomes.

2.2.2.3 Tools and Methods Used

A) SIM Company

❖ **Maintenance Manager:** Use of CAMM ERP, maintenance reports.

❖ **Supply Manager:** Use of ERP, comparative tables, order reports.

❖ **HR Section Chief:** Use of dashboards, performance indicators, reports, ERP.

B) PROMASIDOR DJAZAIR Company

❖ **Industrial Management Control Team Leader:** Use of variance analysis, dashboards, management information systems (ERP).

❖ **Marketing Department Head:** Use of SWOT analyses, marketing dashboards, CRM systems.

❖ **Accounting Officer:** Use of Business Central ERP, TCR, accounting.

❖ **Accounting Officer:** Use of financial statements, balance sheets, TCR, ERP.

❖ **Management Control Department Head:** Use of dashboards, ERP, variance analysis, budgeting.

C) Comparison

❖ **SIM:** Uses tools like ERP and CMMS for resource management and planning, focusing on maintenance reports and performance indicators.

❖ **PROMASIDOR DJAZAIR:** Incorporates specific tools for variance analysis, quality audits, and CRM systems, offering a more comprehensive and diversified integration of management tools.

2.2.2.4 Challenges and Improvements

A) SIM Company

❖ **Maintenance Manager:** Issues with resistance to change, absenteeism, expression of training needs, insufficient number of PCs, network and connectivity problems, absence of a dedicated management control department.

❖ **Supply Manager:** No major weaknesses identified.

❖ **HR Section Chief:** Resistance to change, absenteeism, issues with expressing training needs by department heads.

B) PROMASIDOR DJAZAIR Company

❖ **Industrial Management Control Team Leader:** Data accuracy, alignment of information systems.

❖ **Marketing Department Head:** Measuring the effectiveness of campaigns, adjusting strategies in real-time.

❖ **Accounting Officer:** Financial risks such as bank credit risk and unpaid invoices.

❖ **Accounting Officer:** Managing a huge flow of data.

- ❖ **Management Control Department Head:** Information system, resistance to change

C) Comparison

- ❖ **SIM:** Faces more technical and structural challenges, such as the lack of PCs and network issues, with significant concerns about resistance to change and absenteeism.

- ❖ **PROMASIDOR DJAZAIR:** Confronts challenges related to data accuracy and alignment of information systems, focusing on financial risks and the effectiveness of marketing campaigns.

2.2.2.5 Conclusion

This comparative analysis highlights how management control is perceived and applied differently in the two companies, depending on the specific responsibilities of department heads and the particular challenges they face. The results show that, although both companies benefit from management control, PROMASIDOR displays a more systematic and diversified integration, while SIM focuses more on operational and technical management.

SECTION 03: Discussion and Interpretation of Results

SECTION 03: Discussion and Interpretation of Results

In this section, we discuss the results obtained from our comparative study between SIM and PROMASIDOR DJAZAIR, examining how management control can contribute to improving operational performance. The discussion is structured around the research sub-questions and the hypotheses formulated.

2.3 Optimization of Productivity

At SIM, the use of systems such as CMMS (Computerized Maintenance Management System or CAMM), ERP (Enterprise Resource Planning), and MRP (Manufacturing Resource Planning or CAPM) has facilitated resource management and maintenance, thereby improving operational efficiency and effectiveness. The managers noted a positive impact, making work easier with real-time data.

PROMASIDOR DJAZAIR, using sophisticated management tools like performance dashboards, profitability analyses, and variance analysis, has optimized its manufacturing processes and the management of production teams, leading to a significant improvement in productivity.

These results confirm the hypothesis that management control can promote productivity optimization. Management control tools have enabled both companies to identify and correct inefficiencies, thereby improving their overall performance. This observation aligns with the study by (François Meyssonier & Frédéric Pourtier, 2006), on the impact of ERP on management control, demonstrating that ERP integration enhances management practices by increasing the visibility and coordination of operations.

The improvement in productivity through management control at SIM and PROMASIDOR DJAZAIR is consistent with the conclusions of (Caroline Lambert & Samuel Sponem, 2009), on the different styles of management control functions, where each style can contribute positively to operational efficiency.

2.4 Cost and Expense Reduction

Both companies have succeeded in reducing their costs and expenses through management control. At SIM, the reduction in production costs was mainly due to effective stock management.

PROMASIDOR DJAZAIR identified a technical problem with a machine that was dispensing excessive quantities, which was resolved by an engineer, leading to additional cost reductions and optimizing expenses through the use of variance analysis.

These results support the hypothesis that management control can play a significant role in cost reduction. Variance analysis and proactive management of technical issues have led to substantial savings at PROMASIDOR DJAZAIR, as suggested by (Roland Condor, 2013) in his study on SMEs.

The cost reduction at SIM and PROMASIDOR DJAZAIR reflects the results of (Nobre & Riskal, 2003), on the adaptation of Russian companies to economic changes through advanced management control practices.

2.5 Improvement in Decision-Making Process

Management control has enhanced the decision-making process in both companies. At SIM, leaders reported better decision-making thanks to increased visibility of operations and the rapid identification of inefficiencies. PROMASIDOR DJAZAIR noted more informed and strategic decisions based on precise data.

The improvement in the decision-making process through management control supports the hypothesis that these practices can enhance the quality of decisions. Cindy (Cindy Zawadzki, 2009), highlighted the importance of human factors in the adoption of management tools to improve decision-making.

The results observed at SIM and PROMASIDOR DJAZAIR align with (Laurent Cappelletti, 2021) conclusions on the importance of risk management and quality of work life in improving strategic decisions.

2.6 Effectiveness of the Production Function

Management control has significantly improved the effectiveness of the production function in both companies. At SIM, the availability and performance rates of production lines met or exceeded targets due to proactive maintenance management.

PROMASIDOR DJAZAIR also optimized its production processes, reducing breakdowns and improving the quality of raw materials.

These results validate the hypothesis that management control can be a lever for improving the effectiveness of the production function. Management control tools like KPIs and dashboards enabled continuous monitoring and process optimization, confirming the studies by (Thierry Nobre, 2001), and (Benjamin Drevet, 2017).

The improvements observed are consistent with the research by (Jihane Abi Azar, 2011), which demonstrated the importance of management control practices in optimizing performance across different organizational contexts.

2.7 Conclusion of the Discussion

In summary, the results of this comparative study confirm that management control significantly contributes to improving the operational performance of SIM and PROMASIDOR. The hypotheses formulated are largely corroborated by the empirical data collected:

- **Management control aligns objectives and actions, thereby enhancing operational performance.**
- **It improves decision-making by providing accurate and relevant data.**
- **It promotes learning and continuous improvement, optimizing production processes.**
- **Contrary to hypothesis 4, management control has a significant impact on operational performance.**
- **It enhances the company's forecasting, allowing for more efficient management of resources and costs.**

2.8 Theoretical Positioning

The results of this study support the paradigm of systemic management, where management control is an essential strategic tool for aligning actions and objectives within a company. It integrates into a multidimensional approach to performance, considering economic, financial, social, and environmental dimensions.

2.9 Practical Implications

Companies should strengthen their management control practices by integrating modern tools and proven methodologies to maximize their operational performance. Continuous training for executives on the use of management control data is crucial to improve decision quality and foster a culture of continuous improvement.

The results obtained provide a solid foundation for future research on the role of management control in different organizational contexts and industries. It would be interesting to explore how these practices can be adapted and optimized to maximize their impact on operational performance in other types of businesses.

General conclusion

General conclusion

Research Context

This study focused on the impact of management control on the operational performance of companies, using SIM and PROMASIDOR as case studies. The central issue was on exploring how management control contributes to enhancing a company's operational performance. The research sub-questions aimed to explore various aspects, such as productivity optimization, cost reduction, decision-making improvement, and the effectiveness of the production function.

Synthesis of Key Results

The results of this comparative study confirmed that management control plays a crucial role in enhancing the operational performance of the companies studied. The initial hypotheses were largely corroborated by empirical data:

Alignment of Objectives and Actions: Management control effectively aligned strategic objectives with operational actions, improving coherence and efficiency within both companies.

Improvement in Decision-Making: By providing accurate and relevant data, management control enhanced the decision-making process of executives. Detailed reports and integrated reporting systems enabled more informed and strategic decisions.

Promotion of Learning and Continuous Improvement: Management control tools and practices fostered an environment conducive to organizational learning and continuous improvement, thereby optimizing production processes.

Significant Impact on Operational Performance: Contrary to hypothesis 4, data shows that management control has a significant impact on operational performance, particularly concerning process efficiency and resource management.

Improvement in Forecasting and Cost Management: Management control practices also improved financial forecasting and cost management, enabling more efficient use of resources and cost reduction.

Managerial Contributions

On the managerial front, this study provides several important contributions. It demonstrates that implementing a rigorous management control system can significantly improve operational performance. Companies can use these results to strengthen their management control practices, emphasizing the alignment of objectives, improvement of decision-making processes, and continuous optimization of operations.

Research Limitations and Future Perspectives

This research presents certain limitations, notably its focus on two specific companies, which may limit the generalizability of the results. Additionally, the qualitative nature of the interviews can introduce subjective bias in the responses obtained. Other constraints include insufficient time to conduct the study thoroughly, limited availability of managers, and refusal to provide necessary information under the pretext of confidentiality. These factors have restricted the depth of analysis and the richness of data collected.

For future research, it would be pertinent to explore the impact of management control in different organizational contexts and industrial sectors. It would also be interesting to examine how management control practices can be adapted and optimized to maximize their impact on operational performance in various types of companies.

In Summary, management control proves to be a powerful lever for improving companies' operational performance. The results of this study provide a solid foundation for managers looking to strengthen their management control practices and for researchers interested in delving deeper into this crucial area.

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Appendix 01 : Semi-structured interview guide

Entretiens : individuels, semi-directifs

Durée de chaque entretien : approximativement 20 à 30 minutes

Destiné aux : Cadres supérieurs de l'entreprise SIM/ PROMASIDOR DJAZAIR, chefs des départements ayant une relation avec la performance opérationnelle et le contrôle de gestion, notamment :

Bonjour, je m'appelle Benderradji Zakaria, je suis étudiant en Master 2 spécialité Management des Organisations à l'École Nationale Supérieure de Management de KOLEA. Je réalise cet entretien dans le cadre de mon mémoire de recherche sur le thème : "Le contrôle de gestion au service de la performance opérationnelle de l'entreprise".

L'objectif de cet entretien est de recueillir des informations qualitatives, pour mieux comprendre comment le contrôle de gestion est utilisé au sein de votre entreprise pour soutenir la performance opérationnelle. Votre expertise et vos perspectives sont essentielles pour approfondir mes recherches et enrichir mes analyses dans le cadre de mon mémoire.

Partie 01 : Profil des Personnes Interviewées et Présentation de l'Équipe

1- Pouvez-vous vous présenter en partageant votre formation académique ou professionnelle, votre activité principale au sein de l'entreprise, ainsi qu'une brève description de votre rôle et de vos responsabilités actuelles ?

Partie 02 : Compréhension du Contrôle de Gestion et de la Performance Opérationnelle

Définition et Compréhension du Contrôle de Gestion :

2- Comment définiriez-vous le contrôle de gestion au sein de votre entreprise, quels sont ses principaux objectifs selon vous, et quels outils ou méthodes de contrôle de gestion sont actuellement utilisés dans votre organisation ?

Perception de la Performance Opérationnelle :

3- Quels indicateurs ou critères sont généralement utilisés pour mesurer la performance opérationnelle, et quels sont, d'après vous, les principaux défis ou domaines d'amélioration à adresser en termes de performance opérationnelle ?

Partie 03 : Impact du Contrôle de Gestion sur la Performance Opérationnelle

Analyse de l'Impact Actuel :

4- Selon votre expérience, quel est l'impact du contrôle de gestion sur la performance opérationnelle de votre entreprise ?

5- Pouvez-vous fournir des exemples concrets de mesures ou de stratégies de contrôle de gestion qui ont eu un impact significatif sur la performance opérationnelle dans votre expérience professionnelle ?

Identification des outils et des méthodes :

6- Comment utilisez-vous les principaux outils et méthodes de contrôle de gestion pour évaluer et améliorer la performance opérationnelle de votre entreprise, et comment les intégrez-vous dans le processus de gestion quotidien de l'entreprise ?

Gestion des risques et des opportunités :

7- Comment le contrôle de gestion aide-t-il à identifier et à gérer les risques susceptibles d'impacter la performance opérationnelle ?

8- Dans quelle mesure le contrôle de gestion contribue-t-il à saisir les opportunités d'amélioration de la performance opérationnelle ?

Collaboration et communication :

9- Comment le département de contrôle de gestion collabore-t-il avec d'autres départements de l'entreprise pour améliorer la performance opérationnelle de cette dernière ?

10- Quels sont les défis les plus courants que vous rencontrez dans la communication des résultats du contrôle de gestion aux parties prenantes concernées ?

11- Comment mesurez-vous l'efficacité de la communication des informations de contrôle de gestion pour influencer la performance opérationnelle ?

12- Est-ce que vos collègues des différentes activités de l'entreprise sont collaboratifs et est-ce qu'ils vous fournissent les données requises pour élaborer vos rapports d'activités dans les délais requis ?

13- D'après vous, quels sont les différents points forts et points faibles du système de contrôle de gestion actuellement mis en œuvre au sein de l'entreprise ?

14- Comment, d'après vous, le système de contrôle de gestion de l'entreprise contribue-t-il au processus d'appui à la prise de différentes décisions au sein de l'entreprise ?

15- Y a-t-il des résistances au changement émanant du personnel de l'entreprise et des parties prenantes de cette dernière par rapport à l'application des différentes actions de redressement relatives aux différents problèmes détectés par le contrôle de gestion ?