

MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH  
HIGHER NATIONAL SCHOOL OF MANAGEMENT

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**End of Studies dissertation**

**Master's degree in Strategic Management and Information Systems**

Measure Business Performance with Balanced  
Scorecard Model

**Case:** The Operational Direction of  
Telecommunications (DOT) at Algeria Telecom

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**Academic year: 2022/ 2023**

## ABSTRACT

Algeria Telecom occupies an important position in Algeria's telecommunications. It is one of the essential public service institutions that plays a vital role in the lives of citizens, particularly through its operational department.

Our study, conducted through a qualitative approach, focuses on the importance of effective management in organizations, which heavily relies on the selection of appropriate tools and practices.

Along the same lines, we have chosen to implement the Balanced Scorecard model developed by Kaplan and Norton as a management monitoring and performance measurement tool. Through the application of the Balanced Scorecard, we have evaluated Algeria Telecom's performance across four key perspectives and utilized performance indicators to identify achieved goals and areas that require further attention and improvement.

**Keywords:** Management control, performance measurement, balanced scorecard, Algeria telecom .

## ملخص

تحتل الجزائر للاتصالات مكانة مهمة في الاتصالات السلكية واللاسلكية الجزائرية. وهي إحدى مؤسسات الخدمة العامة الأساسية التي تضطلع بدور حيوي في حياة المواطنين، ولا سيما من خلال إدارتها التنفيذية.

من خلال دراسة تأتي بمنهج نوعي، سنركز على أهمية إدارة فعّالة في المؤسسات، والتي تعتمد بشكل كبير على اختيار أدوات وممارسات مناسبة.

لذا، قررنا إنشاء نموذج لوحة القياس المتوازنة (نموذج كابلان ونورتون) كأداة لمراقبة الإدارة وقياس الأداء. من خلال استخدام لوحة القياس المتوازنة، قمنا بتقييم أداء الجزائر للاتصالات عبر أربعة محاور، واستخدمنا مؤشرات الأداء لتحديد الأهداف التي تم تحقيقها والأهداف الأخرى التي تحتاج إلى العمل عليها وتحسينها.

**الكلمات الرئيسية:** التحكم في الإدارة، وقياس الأداء، وسجل الأداء المتوازن، والاتصالات الجزائرية

## RÉSUMÉ

Algérie Télécom occupe une place importante dans le paysage des télécommunications en Algérie. C'est l'une des institutions essentielles du service public qui joue un rôle vital dans la vie des citoyens, notamment à travers son département opérationnel.

Notre étude, menée à travers une approche qualitative, met l'accent sur l'importance d'une gestion efficace dans les organisations, qui repose en grande partie sur la sélection d'outils et de pratiques appropriés.

Dans le même ordre d'idées, nous avons choisi d'appliquer le modèle du tableau de bord prospectif (Balanced Scorecard) développé par Kaplan et Norton comme outil de suivi du management et de mesure de la performance. Grâce à l'application du tableau de bord prospectif, nous avons évalué la performance d'Algérie Télécom à travers quatre perspectives clés et utilisé des indicateurs de performance pour identifier les objectifs atteints et les domaines qui requièrent plus d'attention et d'amélioration.

**Mots-clés :** Contrôle de gestion, mesure de la performance, tableau de bord équilibré, Algérie télécom

## **ACKNOWLEDGEMENTS**

The Prophet Muhammad (peace be upon him) said, "Do not thank **Allah** who does not thank people."

We begin with the glorious name of **Allah**, praise and glorify Him as He deserves. And we pray for the peace and blessings of **Allah** to be upon His noble messengers, especially the last of them, the Prophet Muhammad (peace be upon him).

The completion of this work would not have been possible without the assistance of various individuals whom I would like to express my gratitude to.

I would also like to thank my dearest **parents** and **My uncle** with his **family**, who have supported me during all these years of study, and I will always be grateful to them for all that they have done for me, and **my sisters** who have always been there for me.

I would like to thank our supervisor **Mr. BELAIDI Ali** for having supervised and supported us to complete our thesis.

I would also like to thank all of **Algeria's telecom** members.

Finally, I would like to thank everyone who contributed to this work from near

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# **INTRODUCTION**

Companies are at the forefront of a radical transformation process. In the past, business performance relied on their ability to leverage a stable environment. However, in today's context, we are experiencing an unstable and highly dynamic environment characterized by constant change and economic and cultural phenomena that have disrupted traditional organizations.

These significant changes have led to a diversification of information sources and increased complexity in analysis and decision-making. This chain of causality, in turn, has prompted organizations seeking to thrive in this challenging context to place greater importance on their informational assets. Simultaneously, several concepts addressing this phenomenon from an organizational and technological perspective have emerged, such as the concept of the Balanced Scorecard, considered as a full-fledged lever for managerial change. (elBahri, 2020)

The Balanced Scorecard, also known as the strategic dashboard or performance scorecard, presents a novel framework that integrates strategic indicators alongside traditional financial performance metrics. It serves as a multidimensional tool for strategic control (Kaplan & Norton, 1992) by offering drivers of future financial performance. These drivers, encompassing customer perspectives, internal processes, and organizational learning, rely on the clear and rigorous translation of strategy into specific objectives and measurable indicators.

This tool represents a balanced performance measurement system that encompasses both financial and non-financial indicators, short-term and long-term perspectives, as well as intermediate indicators and outcome measures. These indicators are distributed across four dimensions: financial, customer, internal processes, and organizational learning (Kaplan & Norton, 2003). It is in this same vein that the Balanced Scorecard plays a crucial role in the field of professional higher education across various countries, including Algeria.

The utilization of this tool is increasingly sought after, and its role continues to expand within various establishments and entities in the telecommunications field. One such entity is the Operational Directorate of Algeria Telecom, which strives to adapt to the transformations occurring in its environment and excel in its primary mission: to deliver telecommunications services of high quality, reliability, and affordability to the Algerian population, businesses, and government entities. Additionally, it aims to innovate and develop its products and services to effectively meet the evolving needs of its customers.

## **1. Problem Statement:**

In recent years, there has been a growing interest in performance measurement tools within academia and businesses, including the telecommunications industry. Effective performance measurement is recognized as crucial for the long-term success of companies, providing a means to gain a competitive edge and adapt to changing market conditions. (Kaplan & Norton, 1996)

The overall performance of the company may be influenced by the deployment of the information system (IS), as long as this is implemented properly. An information system that has been incorporated into a company's business processes, is one of the major factors that increase business performance; However, the advantages of a specific information system may differ between enterprises, based on the economic sector, in which the firm operates, and business processes, for which the IS has been acquired. (Lipaj & Davidavičienė, 2013 , p. 3)

The area of performance measurement has changed rapidly and has improved significantly over the last several years and as time goes on, there are more and more performance measures, such as ROE – Return on Equity, ROA – Return on Assets, ROI – Return on Investment, but increasing competition and the need for information has resulted in the need to change traditional performance measures (Lipaj & Davidavičienė, 2013 ), because it only tells the history of past performance and provides virtually no insight into the future direction of the entity.

According to Atkinson, Kaplan, Matsumura, and Young, financial measures alone do not encourage the intended result. While important, they may not guide performance in value creation.

In the same vein (Atkinson, Kaplan, Matsumura, & Young., 2012), and according to JOHNSON and KAPLAN (1987), the traditional performance measurement indicators do not reflect the changes that appeared in the competitive conditions and strategies of modern organizations.

These significant changes have resulted in a diversity of information sources and complexity of analysis and decision-making, and several concepts dealing with this phenomenon from an organizational and technological point of view. (Johnson & Kaplan, 1987)

So the performance measurement model proposes various indicators for measuring the efficiency and stability of the element, and enterprises may select the best indicators applicable to their enterprises.

Relying on what has been said above, the most frequently used performance measurement model is the Balanced Scorecard, it was originated by Robert Kaplan and David Norton as a performance measurement framework that added strategic non-financial performance measures to traditional financial metrics. According to both authors, managers are aware of the impact of performance measurement but rarely see the measurement system as an integral component of their strategy.

This tool represents a system of performance measurement balanced between financial and non-financial indicators, the short and long term but also between intermediate indicators and measures of results. These indicators are divided into four areas: financial, customer, internal processes, and organizational learning. (Kaplan & Norton., 2003)

It is in this same sense that the scoreboard plays an important role in the domain of higher professional education, across the different countries in the world including Algeria.

Telecommunications, through information, are considered a factor of production in the same way as capital and labor, Telecommunications play a dual role in a country's economy.

The telecommunications sector in Algeria was subject to a public monopoly until the turn of the century. However, the industry has since experienced significant growth, resulting in intense competition between operators in the acquisition and retention of customers. Given the advantages of performance measurement, it is imperative that the sector's attention is focused on the strengths of the Balanced Scorecard framework.

## **2. Research Objective:**

Our interest in this topic stems from our academic background in strategic management and information systems. The Balanced Scorecard is recognized as a decision-making tool within information systems and strategic performance management frameworks.

Therefore, the main objective of our research is to assess the business performance of the operational department in DOT by utilizing the Balanced Scorecard Model (BSC) as a multidimensional view of business performance.

We recognize that relying solely on financial performance indicators is not sufficient, and instead, the BSC emphasizes four perspectives: financial, customer, internal processes, and learning and growth. The aim of this research is to assist DOT in implementing a management tool, such as the Balanced Scorecard, to establish appropriate performance indicators, facilitate management and control, and meet their decision-making needs and expected objectives.

### **Research Question:**

To achieve the objective of our research, we formulate our research question below:

**“Is there any major impact in measuring business Performance when the balanced scorecard model is used as a tool to measure?”**

To address our primary research question, we propose dividing it into four subsidiary research questions:

1. What is the Balanced Scorecard model and its relevance in business management?
2. In what ways does the Balanced Scorecard model contribute to the enhancement of business performance in a company?
3. Why should organizations adopt the Balanced Scorecard method to measure performance?

## **5. Research methodology**

The methodology employed in this research is based on a qualitative approach, which involved the use of four primary data collection tools. These tools include observation, literature review, as well as semi-directive interviews with senior and middle managers within the host organization. By utilizing this approach, we aimed to obtain a more in-depth understanding of the subject matter and to gather rich, nuanced data that could inform our analysis and conclusions. The choice of these particular data collection methods was guided by their ability to elicit rich and varied perspectives, as well as to provide a comprehensive view of the organizational context, which is essential for a thorough assessment of business performance.

In line with the aforementioned objectives and to address the previous inquiries, we have structured our thesis around three main chapters:

- The first chapter, titled " Literature Review and Theoretical Framework," focuses on the literature review, which analyzes previous research conducted on the research topic. It also includes the conceptual framework, presenting the terminology and definitions of key concepts in the study, with a particular emphasis on the theoretical aspects of dashboards and performance management in organizations
- The second chapter is dedicated to presenting the research methodology employed to conduct our study successfully. It includes an overview of the research approach, data collection methods, and data analysis techniques utilized. Additionally, it provides an introduction to the hosting organization, highlighting its background, structure, and relevant aspects related to our research.
- The third and final chapter focuses on presenting the interview findings and the proposed approach for designing a Balanced Scorecard for the Operational Direction of Telecommunications (DOT) at Algeria Telecom. It begins with defining strategic objectives and conducting a SWOT analysis of Algeria Telecom. The chapter then progresses to the implementation of a prospective dashboard model for the DOT at Algeria Telecom, followed by a discussion of the results and concluding with recommendations based on the findings.

**CHAPTER 1:  
LITERATURE REVIEW  
AND  
THEORETICAL FRAMEWORK**

## LITERATURE REVIEW

- The Evolution of Business Performance Measurement
- The limitations of traditional business performance measures
- The BSC is a performance measurement model
- Implementing the BSC in Algerian Companies

## THEORETICAL FRAMEWORK

- The notion of organizational performance
- Measuring Business Performance
- Tools for Measuring Business Performance
- The Balanced Scorecard Model

## 1. LITERATURE REVIEW:

In this chapter, dedicated to the literature review, we extensively examine the subject of business performance measurement, encompassing both conventional and contemporary methodologies that have surfaced in recent times. Moreover, we critically analyze past studies pertaining to the Balanced Scorecard (BSC) and investigate research conducted on Algerian companies.

### 1.1. The Evolution of Business Performance Measurement: From Traditional to New Methods:

Throughout history, businesses have employed diverse performance metrics to assess the effectiveness and efficiency of their operations. These measurements have ranged from fundamental indicators like profit generation to more intricate metrics such as return on investment.

Therefore, **Balog and Rosava** examined a range of approaches and methods for evaluating business performance, encompassing both traditional and innovative techniques. They pointed out that traditional methods are constrained in their ability to offer only a retrospective perspective on a company's competitive position in the past. (ROSOVÁ & BALOG, 2012)

Similarly, **Ghalayini and Noble** emphasized the shortcomings of traditional business performance measures, asserting that they are outdated, challenging to implement, and often result in employee dissatisfaction. Consequently, they advocated for the necessity of developing new business performance measurement systems as a prerequisite for achieving success.. (Ghalayini & Noble, 1996)

Additionally, **Jović and Tomašević** demonstrated that traditional measures rely exclusively on financial data and disregard non-financial elements of a company's performance. These measures are retrospective in nature and primarily concentrate on short-term performance analysis, potentially failing to provide a comprehensive understanding of a company's long-term viability and prosperity. (Zoran Jovićl, 2021)

Concerning the limitations of traditional business performance measures, **Ghalayini and Noble** categorized them into two distinct groups:

(a) General limitations encompassing overall characteristics and features, and (b) Limitations specific to certain traditional performance measures, such as productivity and costs. (Ghalayini & Noble, 1996)

To overcome these limitations, **Balog and Rosova** propose the following recommendations:

1. It is essential to develop new performance measurement systems that exhibit flexibility, primarily focus on non-financial aspects, and can be modified as necessary.
2. These novel systems should be aligned with the company's strategic objectives, primarily utilizing non-financial metrics, and ensure the active participation of all employees.
3. Furthermore, these systems should incorporate straightforward, accurate, and user-friendly metrics that contribute to employee satisfaction. In contrast, newer approaches emphasize a more dynamic and systematic method of assessing performance. Noteworthy examples of such methods include the Balanced Scorecard, Performance Management System, and Logistics Company System, among others. (ROSOVÁ & BALOG,2012)

The authors advocate for a holistic approach to measuring business performance by utilizing a combination of financial and non-financial indicators. This approach enables a more comprehensive assessment of a company's competitive position and facilitates the alignment of business activities with strategic goals. The authors emphasize the significance of continuous measurement and evaluation of business performance to identify areas of improvement and enhance overall performance. They recommend the use of a balanced set of indicators that consider both financial and non-financial factors and align with the company's strategic objectives. By adopting this approach, companies can gain a comprehensive overview of their performance and make informed decisions to drive success.

Contrarily, Ghalayini and Noble argue that the balanced scorecard serves as an integrated performance measurement system that encompasses strategic, operational, and financial measures. They emphasize that the balanced scorecard's primary strength lies in its ability to consolidate numerous seemingly unrelated aspects of a company's competitive performance into a single management report. (Ghalayini & Noble, 1996)

## **1.2 Balanced scorecard (BSC) a model of performance measurement:**

An alternative to the conventional performance measurement system can be implemented by excluding financial measures and shifting the focus solely to operational measures, including customer-related, internal business process-related, and learning and growth-related indicators. Addressing this challenge, Kaplan and Norton (1992) propose that managers should not be forced to choose between financial and operational measures. Instead, they advocate for a balanced integration of both financial and operational measures, providing a comprehensive perspective on performance.

**Robert Kaplan and David Norton** have made significant contributions to this subject, authoring several articles on the topic. In their pioneering work in 1992 titled "Balanced Scorecard Measures that Drive Performance," they introduced the concept of the Balanced Scorecard (BSC) as a tool for measuring business activities from four distinct perspectives. Their conceptualization of the BSC stemmed from their study of 12 companies that were considered leaders in performance measurement at the time. (Robert & P, 1992)

In 1993, Kaplan and Norton published an article titled "Putting the Balanced Scorecard into Action," wherein they delved into the implementation of the Balanced Scorecard (BSC). Their aim was to elucidate the design approach of the BSC, emphasizing its transformation into a comprehensive management system. They argued that an effective measure should be seamlessly integrated into the management process and, by extension, the strategy formulation process. This perspective underscored the intention of developing the Balanced Scorecard as a strategic tool closely aligned with the overall management framework. (Kaplan & Norton, 1993)

In a 1992 interview with **Larry D. Brady**, **Kaplan** highlighted the importance of viewing the Balanced Scorecard (BSC) as more than just a measurement tool for strategy. Instead, he emphasized that the BSC should serve as the core of the management system itself. The effectiveness of the BSC depends on how management chooses to utilize it: whether as a mere record-keeping instrument or as a strategic tool that directs focus towards enhancing organizational performance.. (Brady & Kaplan, 1993)

In their paper titled "Using the Balanced Scorecard as a Strategic Management System" published in 1996, Kaplan and Norton introduced the concept of the Balanced Scorecard (BSC) as a comprehensive strategy management system. They highlighted its ability to establish a connection between long-term strategies and short-term actions through well-defined processes. This strategic

linkage led to a transformation in the definition of the BSC, evolving it from an enhanced measurement system to a fundamental strategic management system. (Kaplan & Norton, 1996)

In **2000**, the two authors integrated the concept of a strategic map for the elaboration of the BSC. They published the article “Having trouble with your strategy? Then map it”. In **2004**, in “Strategy Maps”, **Kaplan & Norton** have shown the Balanced Scorecard as a tool for communicating the strategy processes and systems will help in the implementation of this strategy. The maps provide a visual representation of a company's core objective and the crucial relationships between them that determine organizational performance and advocated the measurement, description, and alignment of intangible assets and activities for better tangible performance.

Additionally, (**Bose and Thomas, 2007**) examined the performance measurement of an Australian company, The Foster’s Brewing Group, where a decline in performance was reversed through the use of BSC along with other initiatives. They suggested successful implementation of BSC is more important than formulating metrics from four perspectives. They also advocate constant re-conceptualism of BSC to reflect developments outside the framework, which means the factors of a business environment. (Bose & Thomas, 2007)

**Gaafar Mohamed Abdalkrim, (2014)** use the Balanced Scorecard (BSC) in private telecommunication companies in Sudan, he founds that the BSC was an effective tool for measuring and managing business performance in these companies. The BSC was used to align performance measures with strategic objectives, monitor progress, and identify areas for improvement. The study gives a strong positive correlation between the BSC and organizational performance, with all four perspectives of the BSC having a significant relation with organizational performance, and he suggests that private sector managers should be made aware of the potential of the BSC as a performance management tool and that benchmarking against other organizations with effective BSC frameworks could be beneficial. (Abdalkrim, 2014)

Overall, the author highlights the potential benefits of its implementation. The case study analysis serves as a practical example of how the BSC model can be applied in real-world business settings to drive performance improvement.

Another study by **Niven (2002)**, suggested that the BSC could be used to align organizational strategy with performance measures. By identifying key strategic objectives and mapping them to specific measures, the BSC could help organizations focus on achieving their strategic goals. The

author also emphasized the importance of selecting the right measures, ensuring that they were relevant and actionable. (Niven, 2002)

On the other hand, **Emad A. Awadallah and Amir Allam (2015)**, after discussing the Balanced Scorecard concept, application, benefits, and limitations, argue that there are limitations to the BSC, which could undermine its effectiveness or cause companies to abandon it for better performance measurement alternatives, then they conclude that while the BSC has been widely adopted, it has serious limitations both in concept and practice. (Awadallah & Allam, 2015)

### **1.3 Research on the balanced scoreboard of Algerian companies:**

In Algeria, researchers are interested in this research topic, we mention among them:

In 2013, **SADAOUI Farid and CHIHA Khemissi** discuss the use of the Balanced Scorecard as a strategic management tool for a public company, using the example of an Algerian appliance manufacturer, highlighting the need for cohesion and convergence within the organization, as well as the involvement of all employees in the execution of the strategy. And explain how the Balanced Scorecard can be used to create a strategy-oriented organization and discusses the importance of innovation and product development in a competitive marketplace and how the BSC is essential to the success of organizations in today's competitive environment. (Farid & Khemissi, 2013)

Also, **Yassine ALI-BELHADJ** 2018, shows a study on the factors that influence the use of the Balanced Scorecard performance model by Algerian companies, factors such as the size and structure of the company, as well as the level of education and training of the management team, have a significant impact on the adoption and effectiveness of the BSC, with discusses the use of the Balanced Scorecard as a performance measurement and management tool. Then concludes that innovative and diverse companies are also more likely to use the Balanced Scorecard. (ALI-BELHADJ, 2018)

In the same vein, **DAHAK Nadjia** (2020) presents the implementation of the Balanced Scorecard (BSC) in a specialized public hospital in Algeria, highlighting the importance of measuring performance in organizations and the use of key performance indicators (KPIs). Also shows the construction of a BSC for the hospital, including the determination of indicators for each dimension, as well as the analysis of data over five years. The author concludes that the hospital is not currently using the BSC to its full potential, but recommends its implementation. (DAHAK, 2020)

## **2. THEORETICAL FRAMEWORK:**

By utilizing the conceptual framework of our study, we will address the essential concepts that designate the content of our research, and help us to answer our problem statement.

In this section, we start with the notion of the business performance of the company. Then we introduce that help to measure business performance. We conclude by focusing on the Balanced Scorecard and presenting its theoretical foundations as an attempt to gain a deeper understanding of it.

### **2.1 The concept of business performance:**

In the organization stream, performance is very important across all areas and activities. It is easy to determine the performance of some activities, but it can be harder in others. There can be physical, mental, work, learning, sport, artistic, scientific, and many other types of performance.

In economic activities, performance is a critical challenge, the economic (business) performance is affected by many factors, and different economic actors are interpreted differently the concept of business performance (according to their expectations). (Zsido, 2015 )

#### **2.1.1 Performance Definition:**

Performance is a difficult concept to define precisely, there are several conceptual definitions. According to The Scribner – Bantam English Dictionary, the word "performance" originates from the root word "to perform," which has various definitions, some of which are:

- a) perform, run, perform.
- b) Fulfill or execute a vow.
- c) Carry out or perfect responsibilities.
- d) Do something that people or machines expect.

The **Hungarian Science and Every Day Language Concise Dictionary** the performance is: “How the business effectively implements the action program in the business life, according to the previously formulated plans, which leads to business effectiveness”. (Hungarian Science and Every Day, n.d.)

the **Romanian Concise Dictionary** (DEX, 1998): “outstanding achievement in a particular area of activity”.

Performance is closely related to competitiveness because performance from a strategic point of view expresses the ability of the organization to continue as desired in a competitive market and, as such, it reflects the organization's ability to deliver on and respond to its strategy with competitive forces, thus it includes the achievement of objectives, the use of resources, and the optimization of internal processes and satisfying stakeholders (مزهودة, 2001).

Most definitions focus on efficiency and effectiveness. However, other frequent terms used to define business performance, don't always have the same content: productivity, efficiency, economic efficiency, profitability, and effectiveness.

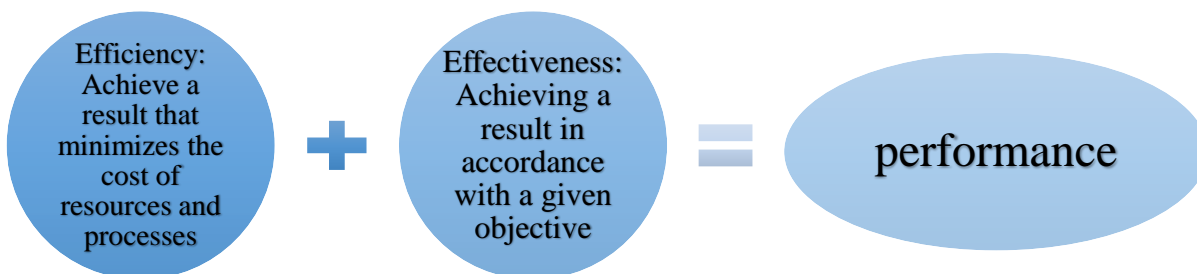
**Effectiveness** is defined as the quality or degree achieved in the production of a desired set of effects. As a result, a producer is effective if their objectives are achieved.

$$\text{Effectiveness} = \text{Results Achieved}$$

**Efficiency** is the maximization of the amount of goods or services obtained from a specific amount of resources. « Efficiency expresses the relationship between the objectives sought and the means to achieve them » (Boislandelle.H.M, 1998, p. 140)

$$\text{Efficiency} = \text{Results Achieved} / \text{Means Used}$$

**FIGURE 1: THE CONCEPT OF EFFECTIVENESS, EFFICIENCY, AND PERFORMANCE**



Source : ALGAVE C. et al, Management des entreprises. Edited by BTS Hachette Technique. Paris, 2008, p 39.

### 2.1.2 Performance typologies:

Performance typologies are defined as the various ways in which organizational performance is categorized and evaluated. These typologies help organizations to identify and measure different aspects of their performance, and to develop strategies and initiatives to improve their overall performance. The selection of the type of performance depends on the organization's goals, objectives, and stakeholders, as well as the industry and market in which it operates.

There are five categories for these types (Schmidt, 2006 )

- **Financial Performance:** Aims to measure and manage financial results such as revenue growth, profitability, and ROI.
- **Stakeholder Performance:** Reflects the expectations and needs of various stakeholders, such as clients, employees, and investors, and measures performance based on their level of satisfaction and commitment.
- **Resource Performance:** focuses on the efficient and effective use of resources, such as labor, capital, and technology, to meet organizational goals.
- **Process performance:** concentrates on the quality and efficiency of organizational processes, such as production, distribution, and customer service, to improve overall performance.
- **Strategic Performance:** Reflects the alignment of corporate activities with overall strategic objectives and measures performance against progress towards achieving them.

### 2.1.3 Business Performance Definition:

For BÖCSKEI and FEKETE (2012), Business performance is determined by economic efficiency. As a general rule, economic efficiency leads to efficiency. But, in certain cases, economic efficiency is not connected to efficiency; it is possible that do not reach their goals, because there is no demand for their product. However, it is also possible that an economically inefficient enterprise will reach its objectives. And business performance shows the company's competitive position reached with productivity and efficiency, and that will ensure long-term survival. (Zsido, 2015 )

In ROLSTADLS's (1995) opinion, business performance is three-dimensional: efficiency shows the consumer needs satisfaction degree, economic efficiency shows how efficiently the company uses its resource, and the changing ability indicate how much the company is prepared for the future. (Rolstadls, 1995)

So Business performance is defined by three factors:

**Efficiency + Economic Efficiency + Effectiveness.**

And interprets the efficiency of business performance with two components: achievement of the goals like the quality component, and the ratio of the results expenses like the quantitative component. In his view, the activity has efficiency if the goals are reached.

In essence, business performance is a subset of overall performance, and it is focused on measuring and improving the performance of a business in achieving its objectives.

While "performance" is a more general term that may apply to any activity or task, operational performance is more specific to operations and management.

## **2.2. Measuring Business Performance:**

Performance measurement has been identified by several well-known academics. Hatry “regular measurement of the results (outcomes) and efficiency of services or programs” (Hatry, 2006, p. 3).

According to Poister, performance measurement is the regular process of defining, monitoring, and utilizing objective indicators to assess the performance of organizations and programs. (H.poister, maria , & jemery, 2015)

“performance measurement is the systematic, orderly collection of quantitative data along a set of key indicators of organizational (or program) performance”.

Then the process of measuring performance is used by management to ensure that resources are acquired and utilized in a manner that is both efficient and effective in attaining the goals of the organization.

Performance can be assessed in two ways: a priori and a posteriori.

- \_ **A priori measurement:** involves tracking progress towards objectives and taking corrective action as necessary. This is done using steering indicators.

- \_ **A posteriori measurement,** on the other hand, involves evaluating the degree of performance achieved or objectives accomplished.

This is typically accomplished through results or reporting indicators, Giraud F et al. suggest that performance measurement can be divided into **financial**, which is expressed in monetary terms, and

**non-financial**, which is expressed in non-monetary units and is not linked to financial aspects such as profit. (F, SAULPICO, NAULLEAU, DELMOND, & BESCOS, 2002, p. 21)

### **2.2.1 Traditional Business Performance Measurement:**

Traditional business performance measurement involves using well-established metrics to evaluate a company's financial performance and assess its success in achieving its objectives

" The conventional approach to measuring business performance involves utilizing standard financial metrics such as net income, return on investment, and cash flow, to assess the financial well-being of a company and its progress towards achieving its goals". (Penman, 2013, p. 4)

And for Sheridan and Arthur "the process of evaluating a company's financial performance using well-established financial metrics such as net income, earnings per share, and return on investment." (Titman, Keown, & Martin, 2007)

**Financial metrics** are a key component of traditional business performance measurement. These metrics provide insights into a company's financial health and help managers make informed decisions about investments, pricing, and profitability. Several financial metrics are commonly used to measure business performance. Here are examples:

- **Gross margin:** This metric indicates how much profit a company is generating from each unit of sales after accounting for the direct costs of producing and delivering the product or service. (Walsh, 2008, pp. 10-11)
- **Inventory Turnover:** This metric measures how quickly a company can sell its inventory, the formula to calculate it involves dividing the cost of goods sold by the average inventory level. (Walsh, 2008, pp. 14-15)
- **Operating cash flow:** This metric measures the cash generated by a company's operations, excluding any cash flows from investing or financing activities. Operating cash flow is a key indicator of a company's ability to generate cash from its core business operations. (Walsh, 2008, pp. 36-37)
- **Price-to-Earnings Ratio (P/E Ratio):** This metric is commonly used by investors to assess the value of a company's stock. It is calculated by dividing the market price per share by earnings per share. (Walsh, 2008, pp. 44-45)

### 2.2.2 The Limitation of Traditional Performance Measures:

- a) **Focus on short-term financial results:** Traditional performance measures such as return on investment (ROI) and earnings per share (EPS) primarily focus on short-term financial results and may not provide a complete picture of a company's long-term performance
- b) **Historical focus:** Traditional performance measures are often based on historical data and may not provide information about future performance trends or potential opportunities and risks
- c) **Difficulty in measurement:** Traditional performance measures may be difficult to measure accurately, especially when dealing with intangible assets such as intellectual property or brand reputation.
- d) **Limited scope:** Traditional performance measures may not take into account non-financial aspects of performance such as customer satisfaction, employee morale, and innovation.
- e) **Lack of comparability:** Traditional performance measures may not be comparable across different industries or companies, making it difficult to benchmark performance against competitors or industry standards.
- f) **Lack of alignment with strategy:** Traditional performance measures may not be aligned with the overall strategy of the organization, leading to a disconnect between performance measures and desired outcomes.

### 2.2.3 Modern business performance measurement:

Modern business performance measurement has evolved to include a broader range of metrics that reflect the changing needs of businesses and their stakeholders. And it takes a more holistic approach, integrating financial and non-financial metrics to provide a more comprehensive view of a company's performance.

“modern business performance measurement is based on the concept of the balanced scorecard, which incorporates a range of financial and non-financial measures that reflect different aspects of organizational performance. It seeks to provide a comprehensive view of organizational performance that is aligned with the organization's strategy” (Kaplan & Norton, *The Balanced Scorecard: Translating Strategy into Action*, 1996, pp. 27-29)

The goal of modern business performance measurement is to provide decision-makers with real-time data and insights that can be used to improve performance and drive innovation.

### 2.2.4 Modern and Traditional Business Performance Measurement Tools:

The difference between modern and traditional business performance measurement tools is essentially their approach, orientation, and implementation methods. (Cokins, 2009)

**TABLE 1: THE DIFFERENCE BETWEEN MODERN AND TRADITIONAL BUSINESS PERFORMANCE MEASUREMENT TOOLS**

	<b>Traditional</b>	<b>Modern</b>
<b>Approach</b>	Financial metrics and operational efficiency	A holistic approach that includes non-financial metrics
<b>Focus</b>	Measuring and analyzing past financial and operational performance.	The need for real-time data and insights to drive decision-making and improve future performance.
<b>Methods of implementation</b>	Rely heavily on spreadsheets and other manual methods of data collection and analysis.	Modern tools leverage technology.
<b>Integration</b>	Often used in isolation.	Often integrated with other business systems and applications, like CRM, etc.
<b>Stakeholder engagement</b>	May not prioritize stakeholder engagement to the same extent.	Often involve a wider range of stakeholders, including customers

Source: done by me from (Cokins, 2009)

Overall, modern business performance measurement tools are designed to be more flexible, adaptable, and responsive to the changing needs of businesses and their stakeholders. They are focused on driving continuous improvement and innovation, rather than simply reporting on past performance.

## **2.3 Measuring Business Performance Tools:**

### **2.3.1 Performance Management and measurement tools:**

The management system of a company is composed of different information tools. In practice, we can distinguish three categories of tools. (Leroy, 1998, p. 17)

- **Predictive tools:** they allow us to study the future and take it into account based on opportunities and know-how.
- **Monitoring tools:** they allow us to interpret variances and make corrective decisions.
- **Support tools:** they assess performance and tend to provide explanations.

#### **❖ Predictive tools:**

- **The strategic plan:** According to Delmas (2011), it is used in the launch period of a company and it is useful when the company reaches a certain level of maturity and needs to make vital decisions that engage its future. Strategic planning involves the integration of managers in setting objectives and communicating and disseminating the strategy within the company. (Delmas.A, 2011)
- **The budget:** According to Autissier et al. (2011), the budget is a forecast of the charges and resources needed to achieve a given product within a strategy. The budget is monitored and performance is identified by minimizing deviations. (Autissier, Bensebaa, & Boudier, 2011)

#### **❖ The tools for monitoring achievement:** The main tools for monitoring achievement are:

- **General accounting:** from a performance management perspective, it allows the company to track its results for a given period through the income statement and determine its financial position from the balance sheet.
- **Management accounting (analytical):** According to Mandou (2003), it is a powerful tool for forecasting, negotiation, monitoring, and control. It calculates the

costs of different functions to analyze the performance of products, equipment, departments, or operational centers of the company and has an internal orientation. (Mandou, 2003)

- **Budgetary control:** According to Anthony (1965), this type of control is based on the analysis of budget variances between the budgeted and actual amounts. (Anthony, 1965)
- **Reporting:** It is a diagnostic system that must provide comprehensive and stable images over time to allow for comparable analysis from one period to another (Philippe 1991, P102 cited by Benmessaoud, 2018).
- **Dashboard:** There are two types of dashboards: traditional and multidimensional.
  - **Traditional dashboards:** consist of a set of financial indicators that are limited in time to one year. Generally, they are composed of a control system that includes action and operating indicators, and a reporting system that uses performance indicators.
  - **Multidimensional dashboards:** After realizing the limitations of managing by numbers, firms in the 80s and 90s turned to prospective frameworks for their organizations to create value from the main financial axes, quality, customer, firm competence, processes, and personnel. Therefore, multidimensional dashboards have taken a place in performance management.

❖ **Support tools: The main support tools are:**

- **Benchmarking:** or comparative analysis is a useful method in this regard as it allows the manager to compare their operational ratios with those of their competitors to see where they stand
- **Reengineering:** It allows the manager to reconfigure a function or process to improve the quality of service provided to the customer. According to this approach, the organization is also horizontal for the same reasons as Benchmarking  
(Mouri, 2015, p. 33)

And for Business performance measurement tools are techniques and methods used to assess and evaluate a company's performance. These tools help managers and stakeholders make informed decisions and identify areas for improvement

Some common business performance measurement tools include:

### **2.3.2 Key Performance Indicators (KPIs):**

“KPIs, or Key Performance Indicators, are measurable values used by organizations to track and evaluate their progress towards specific business objectives. KPIs can be financial or non-financial and are typically tied to a company's overall strategy and goals. They help organizations to focus on what matters most, identify areas for improvement, and make data-driven decisions” (Marr, 2015)

In essence, Key Performance Indicators (KPIs) are managerial tools used to track, monitor, and guarantee that a particular process or activity attains the desired level of performance.

KPIs operate by contrasting actual performance against pre-defined targets. They are a set of quantifiable indicators that gauge the degree to which an organization is successful in achieving its strategic objectives.

The components of KPIs typically comprise strategic goals, corresponding key metrics, benchmarks for objectives, and a defined time frame for achieving KPIs. (Setiawan & Purba, 2020).

David defines KPIs as the indicators that concentrate on the areas of organizational performance that are the most crucial for both the current and future success of the organization. (David P. , 2019, p. 6)

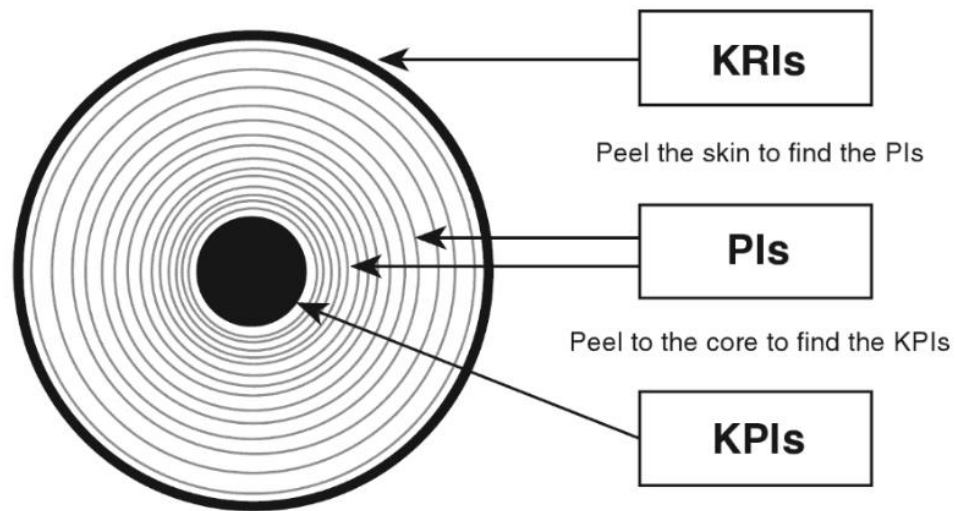
#### **Key Performance Indicator (KPI) in performance measures :**

There is a lack of monitoring of actual KPIs among most organizations, which can be attributed to the limited understanding of what KPIs truly entail by business leaders, writers, accountants, consultants, and organizations in general.

There are three types of performance measures (Parmenter, 2011, p. 1)

1. **Key Result Indicators (KRIs):** provide information on how an organization has performed from a particular perspective.
2. **Performance indicators (PIs):** tell you what to do.
3. **key performance indicators (KPIs):** guide what actions to take to significantly improve performance.

**FIGURE 2: TYPES OF PERFORMANCE MEASURES**



**Source:** Parmenter, D. (2011). *Key Performance Indicators: Developing, Implementing, and Using Winning KPIs*. Wiley. p 2

Then David categorized performance measures into four types after his research, these four measures are in two groups: **result indicators (RI)** and **performance indicators (PI)**, with both these measures we use the term "key" to emphasize the importance of certain aspects

**Result Indicators (RIs)**, which reflect the combined teamwork of multiple teams, and **key result indicators (KRIs)**, which provide an overall summary of the organization's performance for the board.

The other two types are:

**performance indicators (PIs)**, which tell management what teams are delivering, and **key performance indicators (KPIs)**, which allow management to monitor the organization's performance in critical success factors 24/7, daily, or weekly and take action to increase performance dramatically. (David P. , 2019)

### **Objectives of Key Performance Indicator (KPI):**

Key Performance Indicators (KPIs) are one of the primary tools in organizational management and are developed with the following objectives: (Setiawan & Purba, 2020)

- 1) Aligning the vision, mission, organizational strategy, and performance targets with the activities of the organization to attain the desired performance objectives.
- 2) To assess the performance of the organization and its various divisions to determine if there is a noteworthy increase or decrease.
- 3) By comparing current performance with past performance and/or other organizations, a company can identify strengths and weaknesses and create opportunities for improvement and value creation. This provides a framework for the company to evaluate its competitive position and adjust its strategy accordingly.
- 4) Organizational KPIs serve as the foundation for establishing targets and indicators for both divisions and individuals.<sup>12</sup>

The achievement of KPIs can serve as a basis for rewarding or punishing employees, thereby promoting positive work motivation and behavior among them.

#### **Key Performance Indicator (KPI) types :**

KPI helps to provide a framework for organizing KPIs based on their purpose and the area of the organization they are measuring. Some common types of KPIs include : (Bernard, 2012)

- a) **Financial KPIs:** These measure financial performance such as revenue, profit, and return on investment (ROI).
- b) **Customer KPIs:** These measure customer satisfaction, loyalty, and retention.
- c) **Operational KPIs:** These measure the efficiency and effectiveness of operations such as production, logistics, and supply chain management.
- d) **Employee KPIs:** These measure employee productivity, engagement, and satisfaction.
- e) **Social and Community KPIs:** These measure social and community impact such as community involvement, social responsibility, and charitable contributions
- f) **Sales and Marketing KPIs:** These measure the effectiveness of sales and marketing activities such as lead generation, conversion rates, and customer acquisition costs.

Performance management and measurement tools: The management system of a company is composed of different information tools. In practice, we can distinguish three categories of tools.

#### **2.3.2 SWOT:**

The central purpose is to identify the strategies to exploit external opportunities, counter threats, make on and cover company strengths, and annihilate weaknesses. (Hill & Jones, 2008)

A swot is a popular tool for assessing associations, and it can be defined as

" SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. It's a tool that's used to estimate an association's position in its operating environment. SWOT analysis is frequently used as a primary step before embarking on a more detailed analysis of the association's strategic position, and it can be used as a starting point for strategic planning. (Lind, (2014))

" SWOT analysis is a strategic planning technique utilized by organizations to identify and evaluate their internal strengths and weaknesses, as well as external opportunities and threats. It is a process that involves gathering and assaying information about an organization's internal and external environment to develop a strategic plan that will enhance the organization's performance and competitiveness." (David & David, 2019).

Then is a brief overview of how SWOT analysis can be used as a tool to measure business performance and inform planning:

- **Strengths:** This involves relating the internal factors that give the business a competitive advantage over others. These may include unique capabilities, palpable and impalpable assets, valuable resources, a strong brand reputation, or a loyal customer base. By recognizing and leveraging these strengths, the business can measure its performance in terms of its competitive positioning and identify areas where it can further subsidize its strengths, and achieve a sustainable competitive advantage in the request. (Harvard, , 2009)

"Strength is a resource, skill, or another advantage relative to challengers and the requirements of the requests an association serves or expects to serve. 's a distinctive capability that gives the association a relative advantage in the marketplace. Strengths may live concerning financial resources, image, market leadership, buyer/supplier relations, and other factors" (PEARCE & ROBINSON, 1991, p. 182)

- **Weaknesses:** it also involves relating the internal factors that place the business at a disadvantage compared to others. These may include areas where the business lacks expertise, resources, or competitive positioning. By admitting and addressing these weaknesses, the business can measure its performance in terms of areas that require enhancement or mitigation of risks, and it allows organizations to address and ameliorate these areas to achieve greater success. (Harvard, , 2009)

" A weakness refers to a limitation or inadequacy in an organization's resources, skills, or capabilities that significantly hinders its ability effectively to perform effectively Sources of

weaknesses can include facilities, financial resources, management capabilities, marketing skills, and brand image. ” (PEARCE & ROBINSON, 1991, p. 182).

- **Opportunities:** This involves relating external factors or market trends that can produce favorable conditions for the business to grow or expand. These may include arising markets, changing consumer preferences, or technological advancements. By identifying and seizing opportunities, the business can measure its performance in terms of its ability to capitalize on external factors and drive growth. (Harvard, , 2009)

"A positive or advantageous situation or circumstance that has the potential to enable an organization to achieve its objectives." (Bazzanella, 2015)

- **Threats:** This involves identifying external factors or market trends that can pose challenges or risks to the business. These may include competition, regulatory changes, economic fluctuations, or technological disruptions. By recognizing and mitigating threats, the business can measure its performance in terms of its ability to manage risks and navigate challenges.

"External factors that are beyond an organization's control and have the potential to put the business or organization at risk." (Bazzanella, 2015)

Then Strengths and weaknesses are internal factors that impact a business's performance. By identifying strengths, a business can leverage them to achieve a competitive advantage. Weaknesses should be addressed to improve performance, on the other hand, should be addressed to improve performance. Opportunities and threats are external factors that impact a business's performance. Opportunities represent potential areas for growth, while threats are risks that must be mitigated.

### **2.3.3 Benchmarking:**

Benchmarking is a process of comparing a company's performance against that of other similar companies or best-in-class performers to identify areas of improvement and opportunities for growth.

"The act of comparing an organization's operations, processes, or performance against those of others to gain insights and make improvements is known as benchmarking. (Zairi Karachi , 2005)

“Any technique, expertise, skill set, or expertise that has demonstrated its value or effectiveness in one organization and can be relevant to other organizations”.

This company recognizes 4 levels of best practices; good idea; good practice; local best practice, and industry best practice (Dell & Grayson, 1998, pp. 154-174)

the below table shows the different types of benchmarking.

**TABLE 2: TYPES OF BENCHMARKING**

<b>Competitive</b>	<b>Functional</b>	<b>Internal</b>	<b>Generic</b>
Reverse engineering of products and process technology	Non-competitor	Against oneself	Rate owners' performance against the world-best.
Compare with direct competitors	Reactive or proactive	Internal sources	Focus on customer value
Reactive	Against the best in the industry and best in class	Internal continuous effort	Latest art of benchmarking
Non-pervasive	Relatively easier access	By the function of business process	Any business operations
Operational focus	Two-way partnership	Inter-business unit of the same corporation	The most complex
	Greater potential for mutual learning	across demographic	Relatively difficult access
	Isolated functions	Internal standards may not necessarily be world-class	Pervasive
	E.g. Xerox BM logistic against Volvo, 3M, Ford, IBM, and Saisbury's;	Easier access	Often strategic focus
	Xerox BM distribution against L.L.Bean.	Low to medium resources required	High resources required
	Operational focus	Operational focus	

**Source:** Zairi and Leonard (1994), Practical Benchmarking: The complete guide, Chapman & Hall.

### 2.3.4 performance dashboard:

"A performance dashboard is a visual representation of the most important data that a manager needs to effectively evaluate his or her team's or organization's performance in real-time" (Eckerson, 2010)

- **Dashboard definition :**

The following definition is based on the March 2004 edition of Intelligent Enterprise magazine.:

“A dashboard is a visual display of the most important information needed to achieve one or more objectives; consolidated and arranged on a single screen so the information can be monitored at a glance”

-Stephen Few

A dashboard is a visual aid used by an enterprise to enable team members at all levels of the organization to keep tabs on, scrutinize, and interpret data concerning the organization, facilitating the decision-making process to enhance its current and future success.

Dashboards can help in:

- **Evaluate:** dashboards respond to questions such as "Have goals and objectives been achieved? Are we getting it right?"
- **Reveal:** dashboards help visualize and digest information very quickly – meaning more time for strategic planning.
- **Certainty:** Dashboards help to have confidence in the insights.
- **Communicate:** Using a visual tool can help deliver the message in a shared format and create an impact

There are three types of dashboards:

- **Strategy-oriented dashboards** (called “balanced scorecard”)
- **Cost control dashboards** (called budget dashboards)
- **Performance dashboards** (called operational dashboards).

- **Management Dashboard:**

A "management dashboard" is essentially a system for measuring and managing performance, referred to as PMS, which consists of a cohesive set of performance indicators or measures.

These measures are used to assess the effectiveness and efficiency of actions, allowing management to make informed decisions by gathering, integrating, analyzing, and interpreting relevant data.

And “management dashboard” must also serve as a **strategic** and **balanced** system.

**strategic** because the selection of indicators must be based on a precise identification of critical success factors (CSFs), which are the qualitative elements that characterize the company's strategic choices. It should also be **balanced** because it should provide a comprehensive view of the company's functioning, with critical success factors and indicators not limited to the financial realm, but also encompassing areas such as customer and supplier relationships, innovation processes, and alignment of human resources skills with preset competence profiles. (Biazzo & Garengo, 2012, p. 2)

- **The limits of the dashboard:**

In reality, several shortcomings appear during or after the development of the dashboard, among them:

- No dashboard is tailored to each service or hierarchical level, but rather a single dashboard that does not always correspond to the specificities of the activity;
- The dashboard is often fixed for years without adaptation to new needs, objectives, or means;
- The objective of the dashboard remains too often that of control without helping to change or improve;
- The periodicity of the dashboard is often the same for all services even though it may be inappropriate for certain professions;
- The design of the dashboard is often left to the initiative of those who will use it, but rather centralized away from the field;
- The indicators used are sometimes disconnected from the overall strategy and do not allow for action to be directed at the right time;
- Indicators are not questioned, and the lack of perspective over a long period leads to routine management.

## **2.4 The Balanced Scorecard Model :**

In the last twenty years the change and complexity of the environment, the intensity of competitive rivalry, and the transition from the industrial age to the information age have made the

conduct of a company to success a delicate task, for this reason, performance management has become an important topic in reality and practice, thus several authors have proposed to companies to develop new performance measurement tools that integrate in addition measures of the financial performance of non-financial

measures such as the prospective dashboard developed by KAPLAN. R and NORTON. D in 1990

#### **2.4.1 The Balanced Scorecard Definition**

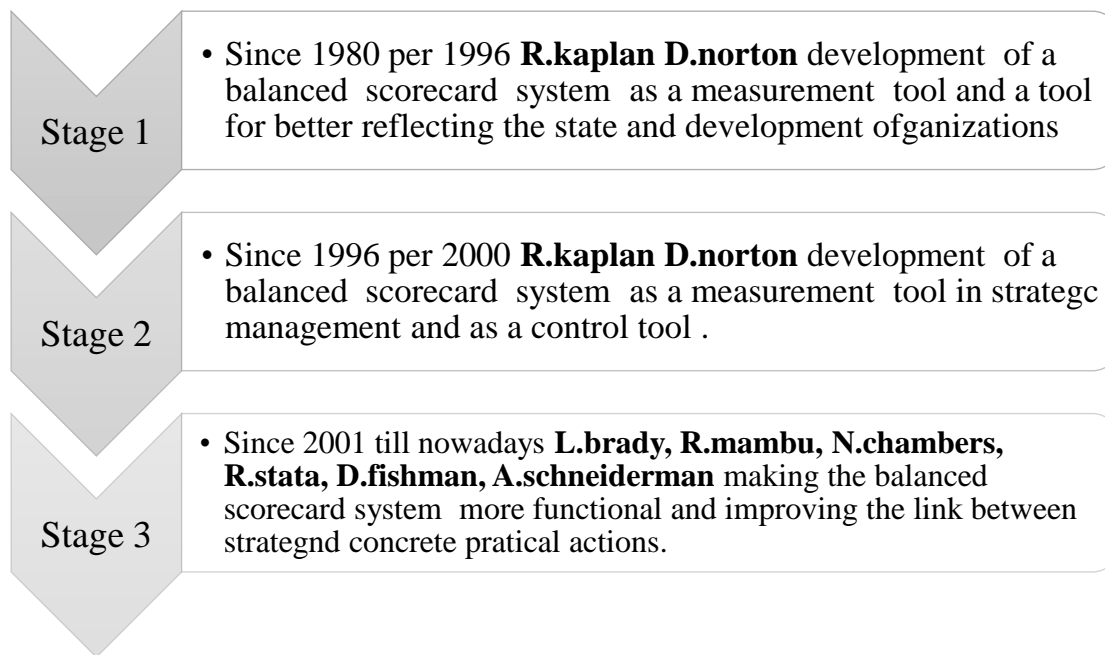
the balanced scorecard is a performance measurement system that puts strategy and vision at the center, rather than control. It combines financial, customer, internal process and innovation, and organizational learning perspectives to help managers understand the company's view of the world and its perspective on key success factors. (Robert & P, 1992)

"a balanced scorecard is a timely idea" and "a tool for measuring and managing organizational performance." It is a system that goes beyond traditional financial measures and includes non-financial measures such as customer satisfaction, internal processes, and employee learning and growth (Trofimova & Kalimullina, 2021)

The term "balanced scorecard" refers to a system of quantified performance measures that are designed to achieve balance across various dimensions.

The term "scorecard" implies the use of objective measures to evaluate performance, while "balanced" refers to achieving equilibrium between different factors, including short-term and long-term objectives, financial and non-financial measures, Leading and lagging indicators, as well as internal and external performance perspectives in the evolution of the balanced scoreboard, it is possible to distinguish several major stages of development:

***FIGURE 3: STAGES OF DEVELOPMENT OF THE BALANCED SCORECARD***



*.SOURCE: TROFIMOVA, OLGA; KALIMULLINA, GULNAZ, 'EVOLUTION OF THE CONCEPT OF A BALANCED INDICATOR', 2021, P2.*

In the late 1980s and early 1990s, the concept of the balanced scorecard emerged as a strategic management tool for individual companies.

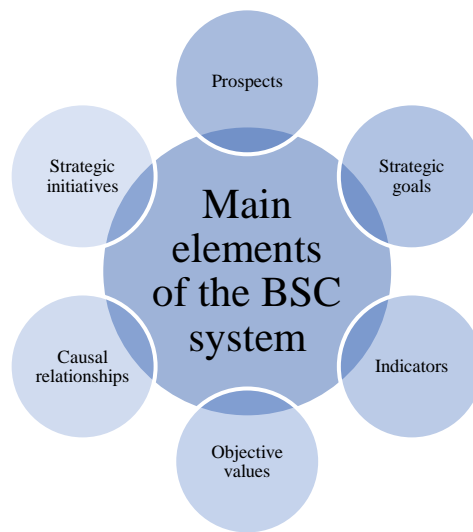
Economists Robert Kaplan and David Norton extensively studied American companies, both large and small, during this time to develop a unique system for evaluating organizational performance. They discovered that most companies focused solely on financial business management tools to improve short-term financial indicators.

This often led to reductions in employee training, financial incentives, marketing and advertising, and customer service, which ultimately resulted in decreased profits. Neglecting customers, who are a critical indicator of a company's success, can be particularly detrimental to the bottom line. (Trofimova & Kalimullina, 2021)

### **2.4.2 The Evolution of the Balanced Scorecard as a Strategic Management Tool:**

The balanced scorecard system has gone through various stages of development, with improvements in its parameters and the study of their interrelationships. The system includes six main elements (figure 4)

**FIGURE 4: THE SIX MAIN ELEMENTS OF THE BALANCED SCORECARD SYSTEM**



SOURCE: DONE BY ME FROM (DELMAS.A, 2011)

These elements work together to create a comprehensive framework for monitoring and evaluating an organization's performance and progress toward achieving its strategic goals.

- **Prospects** refer to the organization's vision and mission, while **strategic goals** are specific objectives aligned with the prospects.
- **Indicators** are the measures used to track progress toward achieving **strategic goals**, and **objective values** are the targets or benchmarks against which progress is measured.
- **Causal relationships** describe the cause-and-effect relationships between different indicators, and **strategic initiatives** are the actions taken to improve performance and achieve strategic goals.

The development of the balanced scorecard can be summarized in the following main ideas:

- 1) **Enrichment of parameters:** The development of the balanced scorecard began with a focus on financial measures, but over time, other parameters such as customer satisfaction, internal processes, and learning and growth were included to provide a more comprehensive view of an organization's performance.
- 2) **Study of interrelationships:** As more parameters were added to the balanced scorecard, it became necessary to study the interrelationships between them to better understand how they contribute to an organization's success.

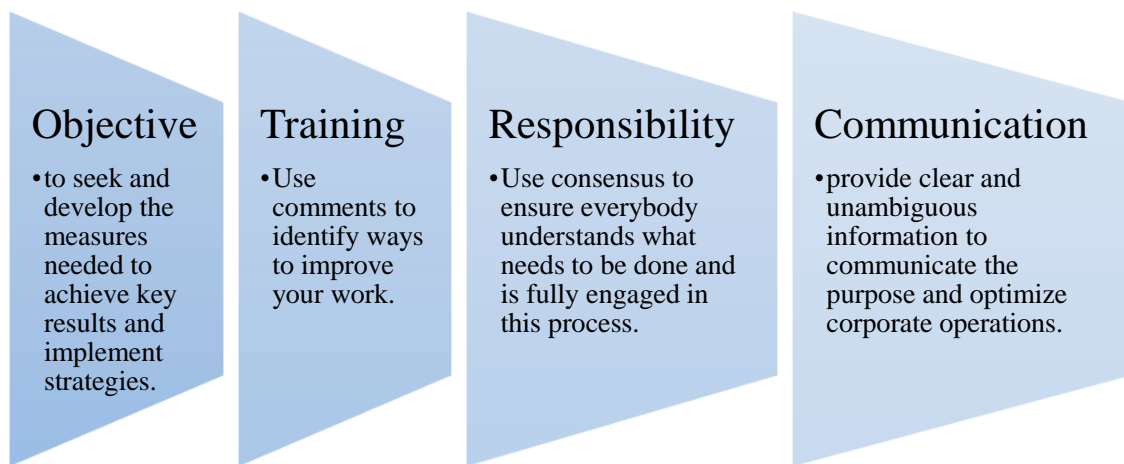
- 3) **Expansion and refinement:** With a gradual understanding of new factors of organizational success, the range of indicators included in the balanced scorecard continued to expand and refine.
- 4) **Development of measurement methods:** Approaches and methods for measuring the values of the indicators were developed and implemented.
- 5) **Focus on ranking indicators:** The ability to explore the relationships between different indicators and rank them according to their role in strategy became central to the development of the balanced scorecard.
- 6) **Operationalization of strategy:** As the development of the balanced scorecard matured, it became a tool for operationalizing an organization's strategy through indicator models.

Then the advancement of technology is crucial to the development of a balanced scorecard system. It enables the analysis of existing indicators in novel ways. The emergence of Excel programs has been particularly significant in this regard. Presently, Excel facilitates the creation of dashboards, which are extremely useful in conducting research.

The third generation of the balanced scorecard represents a strategic management approach that helps organizations manage and evaluate their activities toward achieving their goals. This model addresses common issues such as the lack of accountability in management, the focus solely on financial metrics, and the inability to drive continuous development and improvement within the management system. (Trofimova & Kalimullina, 2021, pp. 3-4)

The ideas behind the third-generation balanced scorecard are based on the following key business management and strategic manager assumptions:

***FIGURE 5: THE BASIC ASSUMPTIONS OF THE THIRD-GENERATION BALANCED SCORECARD.***



SOURCE: TROFIMOVA, OLGA; KALIMULLINA, GULNAZ, 'EVOLUTION OF THE CONCEPT OF A BALANCED INDICATOR', 2021, P4

THE FOLLOWING TABLE COMPRISES THE BALANCED SCORECARD GENERATIONS.

TABLE 3: THE BALANCED SCORECARD GENERATIONS

BSC generations					
Generati ons	The First Generation	The second generation	The third generation		The fourth generation:
	BSC as a tool performance measurement tool	BSC as a strategic manageme nt tool	Strategic Communicati on	Office of Strategy Management (OSM)	Value Creation
<b>Develop er</b>	Kaplan, & Norton, 1992	Kaplan, & Norton, 1996	Lawrie, Cobbold, 2004	Kaplan, & Norton, 2008	Allan Rodrigues, 2007
<b>Objective</b>	Filtering and clustering measures	Mappin g the strategic objectives	Selecting priority objectives and	Integrates BSC with management tools in a	Speed up the process of organizational learning from its

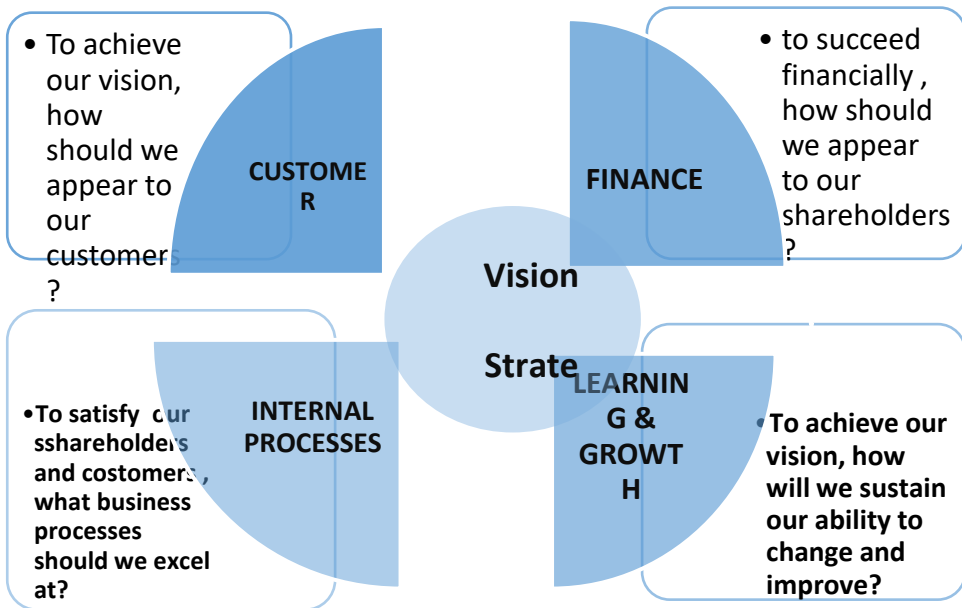
	into four perspectives	and showing causality.	alignment of strategic goals.	comprehensive and closed-loop system	strategy. Linking the scorecard to the value of the company, and using it as a value advisory service and as a measure of the impact of the firm strategies on the community and the environment
<b>Components</b>	Four perspectives: financial, customer, internal business, learning, and growth	Strategic objectives Strategy map	Destination statement Strategic linkage model	Six-stage closed-loop management system Office of Strategy Management (OSM)	Business Compass

SOURCE: (MARWA RABE MOHAMED ALI "BALANCED SCORECARD DEVELOPMENT OVER THE LAST 26 YEARS " IOSR JOURNAL OF BUSINESS AND MANAGEMENT 2019, P16 )

### 2.4.3. The Balanced scorecard components and implementation procedures

The BSC is based on the premise that financial measures alone cannot provide a complete picture of an organization's performance, and thus it includes four perspectives

**FIGURE 6: THE BALANCED SCORECARD PROVIDES TO TRANSLATE A STRATEGY INTO OPERATIONAL TERMS**



SOURCE: (ROBERT S. KAPLAN AND DAVID P. NORTON, THE BALANCED SCORECARD TRANSLATING STRATEGY INTO ACTIONS, 1996 P9)

**1) Financial Perspective: In what way do we appear to our shareholders?**

According to Kaplan and Norton (1996), financial measures serve two purposes: first, they help achieve the desired financial performance based on the strategy,

and second, they represent the ultimate goals of the non-financial perspectives of the Balanced Scorecard. The organization chooses specific performance indicators based on its strategy, while the financial perspective is concerned with measuring profitability.

Before setting financial goals, leaders must determine whether they want to focus on increasing revenue and market share, profitability, or improving cash flow. Therefore, the Balanced Scorecard always relies on financial indicators to effectively evaluate the quantifiable economic effects of past actions. Indeed, they make it possible to determine whether the intentions and implementation of the strategy contribute to improving financial results. Generally, financial objectives relate to profitability, measured, for example, by operating profit, return on invested capital, or economic value added, they can also aim for rapid revenue growth or the generation of cash.

A measurement and management system, to be complete, must demonstrate the relationship between process improvement, customer service, new products and services, and improved financial results.

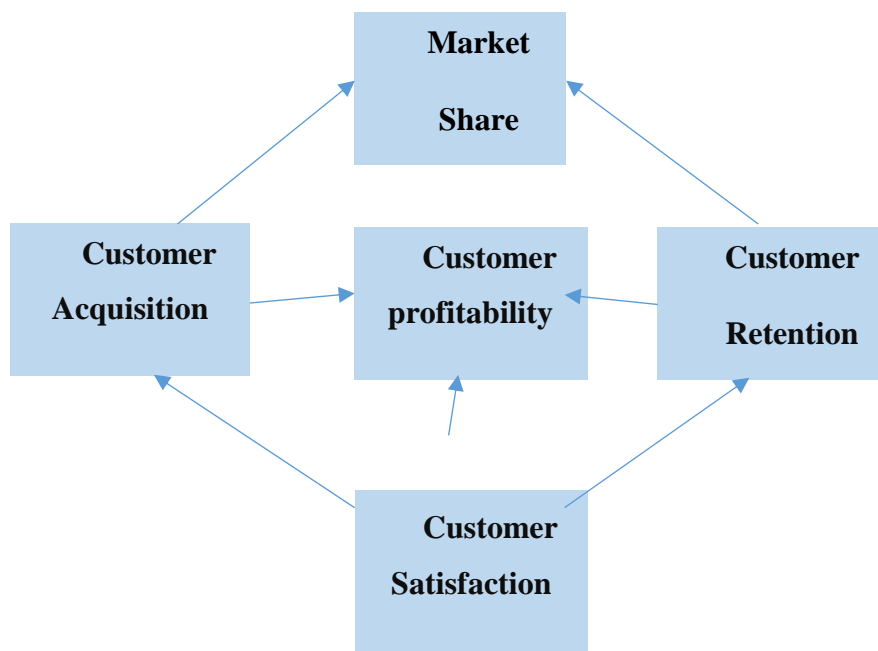
The choice of financial indicators is important and the company must select those that can both translate its long-term strategic objectives and be related to indicators from other perspectives (operationalizing its objectives). (Guerra, 2007)

## 2) Customer Perspective: How do customers see us?

The objective of the customer perspective is to identify and meet the needs of customers by providing them with products or services that offer the desired value while taking into consideration quality and perceived value.

According to Kaplan and Norton, customers focus on factors such as time, quality, performance, service, and costs. To achieve customer satisfaction and retention, a company must provide timely delivery, innovative products/services, technological excellence, and cost-effectiveness, since dissatisfied customers may look for alternatives elsewhere. Customer measures are considered to be predictors of future performance. (Kaplan & Norton, *The Balanced Scorecard: Translating Strategy into Action*, 1996)

**FIGURE 7: THE CUSTOMER PERSPECTIVE-CORE MEASURES**



SOURCE: (KAPLAN, NORTON. (1996). *THE BALANCED SCORECARD TRANSLATING STRATEGY INTO ACTION*. . HARVARD BUSINESS PRESS. P.68

All of these metrics are interconnected as they have an impact on one another. For instance, customer satisfaction can influence the process of acquiring new customers, the loyalty of current customers, and the profits earned from them. Likewise, customer acquisition and retention can affect an organization's profitability and market share.

### **3) Internal business process Perspective: What must we excel at?**

The business process is provided by the generic value chain model. The organization can modify it to fit and serve its own goals and measures within its internal business process.

It focuses on the processes and systems within an organization that contributes to achieving its strategic objectives. The objective of this perspective is to identify and measure the critical processes that drive the organization's success and to continuously improve those processes to enhance performance.

Kaplan and Norton suggest that companies should concentrate on enhancing and excelling in the business processes that are crucial for customer satisfaction and competitiveness within their industry. The internal business perspective can be measured using various indicators such as innovation rates, service measures, lead-time, quality measures, efficiency measures, and cost reductions. (Kaplan & Norton, *The Balanced Scorecard: Translating Strategy into Action*, 1996)

### **4) Learning and Growth Perspective: can we continue to improve and create value?**

Organizational learning includes three components: people, systems, and procedures. The "financial," "customer," and "internal process" axes of the balanced scorecard should highlight the gap between the current capabilities of people, systems, and procedures and those that are essential to increase the overall performance of the company. To reduce the gap between the "actual" and the "desired" state, it will be necessary to invest in new skills, improve information systems, and adjust procedures and practices. (Guerra, 2007)

Organizational learning can be seen as problem-solving embedded in action: "We learn when we detect an error and correct it." (Argyris, April 16, 1993)

It is, therefore, necessary to detect "the gap between what we expect from an action and what happens once the action is initiated" and to make corrections, i.e., "the set of procedures activated and actions taken" to reduce the gap "between intention and the result obtained."

The learning and growth perspective of the Balanced Scorecard can be divided into three principal categories:

- **Employee training and development:** This category focuses on the organization's efforts to enhance the knowledge, skills, and abilities of its employees through training programs, development opportunities, and other initiatives.
- **Information system availability:** This category focuses on the availability and accessibility of information systems and technology infrastructure to support the organization's operations and decision-making processes.
- **Cultural alignment and employee motivation:** This category focuses on the organization's efforts to create a positive and supportive work environment, foster a culture of continuous improvement, and motivate employees to achieve the organization's goal (Boudreau & O'Keefe, 2002)

### STEPS TO CREATE A BALANCED SCORECARD:

FIGURE 8: STEPS TO CREATE A BALANCED SCORECARD



SOURCE: TROFIMOVA, OLGA; KALIMULLINA, GULNAZ, 'EVOLUTION OF THE CONCEPT OF A BALANCED INDICATOR', 2021, P5

During the first step, the company undergoes a strategic analysis, which involves using various tools such as PEST, SWOT, and SNW. These tools are effective in gathering information about both the internal and external environment of the company, evaluating its strengths and weaknesses, and identifying potential risks and opportunities. By conducting these analyses, external factors such as political, technological, social, and economic factors are considered, as well as internal factors. This helps to develop a comprehensive understanding of the company's overall landscape.

In the second step, the company's vision is established, which includes defining the mission, vision, strategic goals, and core values. Then, strategic objectives and initiatives are identified, where

tasks represent the problems that need to be solved to achieve the goals. Initiatives are projects that need to be developed to accomplish the objectives. This forms the foundation of the balanced scorecard, which is visually represented by the organization's strategy map.

During the third step, the company creates a strategic map by identifying the cause-and-effect linkages between its strategic objectives. This process connects the company's goals in a logical chain, following the principle of "if-then". As a result, the goals and their connections form the strategic map of the organization. (Trofimova & Kalimullina, 2021)

#### **2.4.4 Strategy map:**

strategy map is a visual representation that shows how an organization's strategic objectives are linked and aligned with one another to achieve the overall mission and vision of the organization. It provides a cause-and-effect relationship between the different objectives and helps to communicate the organization's strategy to all stakeholders clearly and concisely. A strategy map typically includes four perspectives: financial, customer, internal business processes, and learning and growth, and shows how objectives in each of these areas contribute to achieving the organization's overall goals. (Kaplan & Norton, 2005, p. 12)

Therefore, the strategy map provides a comprehensive framework for the strategy that the company aims to execute and the ways to accomplish it. A properly developed strategy map can effectively communicate a clear and compelling description of the objectives that an organization needs to achieve to accomplish its overall goals. (Barabel & Olivier, 2006)

The strategy map aims to depict the cause-and-effect relationships within the performance domain to predict future performance and continuously monitor the impact of a performance strategy. This eliminates the need to wait until the completion of the investment-operation cycle to determine its success or failure.

#### **2.4.5 Chain of Cause-and-Effect Relationships:**

The chain of cause-and-effect relationships refers to the interdependent relationships between the different perspectives of the Balanced Scorecard and how they work together to achieve the organization's overall strategic objectives.

Robert S. Kaplan and David P. Norton explain that the four perspectives of the Balanced Scorecard (financial, customer, internal business processes, and learning and growth) are linked by cause-and-effect relationships. For example, they describe how improving internal business

processes can lead to improved customer satisfaction, which in turn can lead to improved financial performance. They also note that the learning and growth perspective is the foundation for the other three perspectives, as it enables the organization to develop the capabilities and knowledge necessary to improve performance in the other areas.

By identifying and understanding these cause-and-effect relationships, organizations can develop a more coherent and integrated approach to strategy execution, aligning all aspects of the organization toward the achievement of its strategic objectives.

#### **2.4.6 Design of the strategy map :**

The design of a strategy map for the balanced scorecard typically involves four main steps:

1. **Define the strategic objectives:** This involves identifying and articulating the key strategic objectives that the organization aims to achieve in the long term. These objectives should align with the organization's mission and vision.
2. **Develop the cause-and-effect relationships:** This step involves identifying the relationships between the strategic objectives and determining how they contribute to the overall success of the organization. The Relationships should be logical and based on evidence.
3. **Determine the performance measures:** For each strategic objective, the organization must identify the key performance indicators (KPIs) that will be used to measure progress toward the objective. These KPIs should be relevant, meaningful, and aligned with the objective.
4. **Create the strategy map:** Using the information gathered in the previous steps, the organization can create a visual representation of the strategy map. The map should clearly show the cause-and-effect relationships between the strategic objectives, and the KPIs that will be used to measure progress towards each objective. The map should also be easy to understand and communicate to stakeholders. (Bardole, Sánchez, & Valero-Gil, 2015)

Kaplan and Norton (2004) state that the strategy map serves multiple purposes, including:

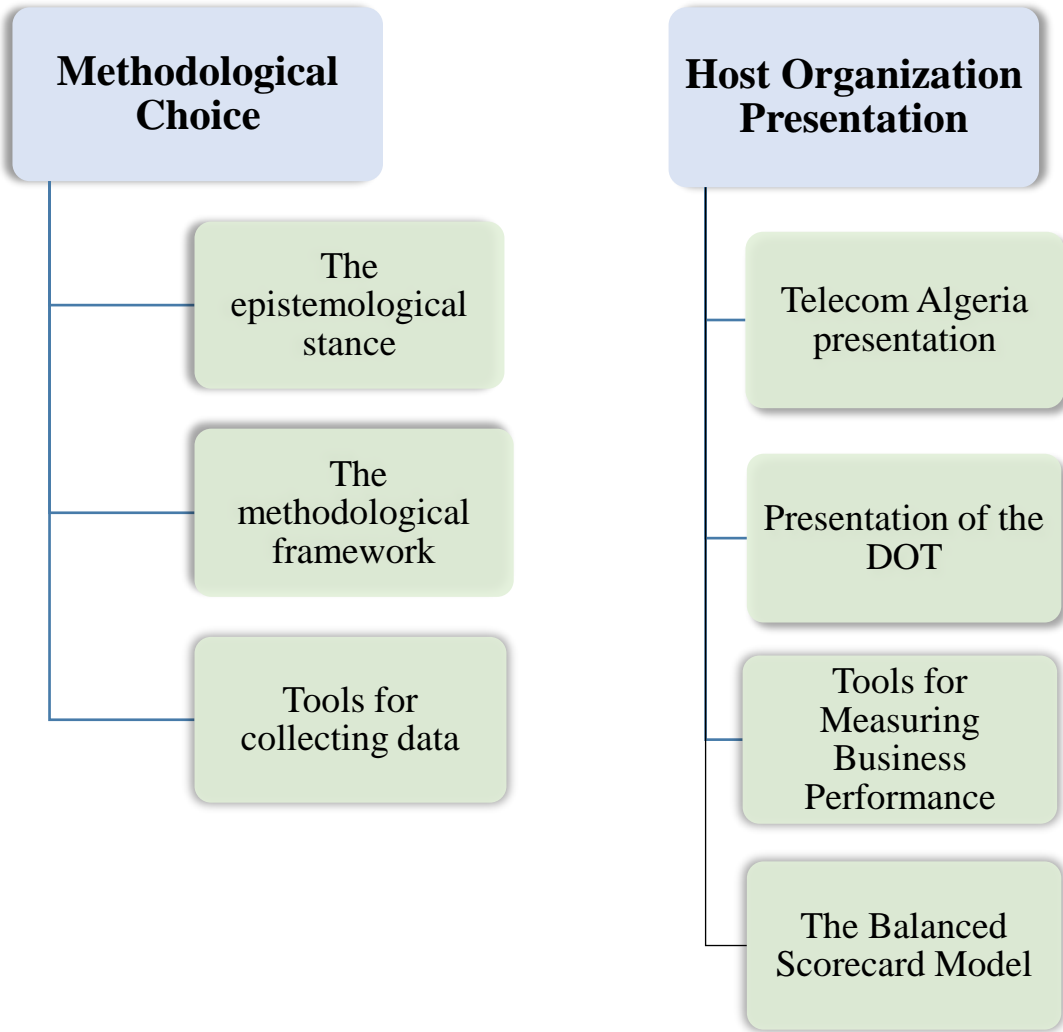
- Identifying gaps in the strategy implementation process and facilitating corrective actions.
- Identifying crucial processes necessary for the successful implementation of the strategy.

- Clarifying the strategy and facilitating communication of the strategy to all employees.
- Ensuring alignment of investments in human resources, technology, and organization with the direction of the strategy. (Kaplan & Norton,2004

In this first chapter, we conducted bibliographic research that allowed us to cover all the generalities related to the key concepts of our study. This was beneficial in order to become more familiar with the theoretical environment in which our research is situated, whether through various previous works or through the analysis of important elements related to the Balanced Scorecard, performance, and the correlation between these two factors.

This theoretical research provides a solid foundation that will guide us in our empirical study, facilitating the measurement of business performance on the field, using a BSC approach to enable our host organization to achieve better performance. The next chapter will present the BSC approach and the research methodology adopted for this study.

**CHAPTER2 :**  
**METHODOLOGICAL CHOICE**  
**AND**  
**ORGANIZATIONAL CONTEXT**



The current chapter looks into the identification of other indispensable elements, constituting a relay between the theoretical part and the research field, of which they present the portal.

The present chapter contains two main sections. The first section deals with the methodological choices for our study. the second will deal with the organizational context of our research, where we will present the host organization in which we carried out our internship.

## **1. Methodological Choice:**

As indicated above, this first section outlines the methodological approach. At first, it discusses the epistemological stance, followed by the appropriate demarche adopted to our research. Then we present the methodological tools used in our stud.: sampling and collecting data and grid analysis.

### **1.1 The epistemological stance:**

In the positivistic paradigm, the researcher has no impact in changing reality. However, in then the constructivist paradigm, knowledge is not an outcome but built as a depiction where the researcher will try to understand the phenomenon through the experience of other researchers.

Accordingly, we place our research in a constructivist epistemological paradigm, which is based on the principle of the construction of knowledge by the inductive method which consists in starting the individual without seeking to generalize but rather to understand the problem in its ins and outs and build the scientific truth relating to our research on.

### **1.2 The methodological framework:**

In response to our problem statement, we have opted for a qualitative demarche (Aubin-Auger, 2008, p. 143).

For some researchers, qualitative research is in opposition to quantitative studies. But since the two demarches do not explore the same fields of knowledge there is a complementarity between the two. (Taylor & Bogdan, 1984)

Qualitative demarche is interested in the meaning and observation of a social phenomenon in a natural situation. This demarche does not reject numbers or statistics; it deals with data that is difficult to quantify. For this reason, it does not give them the first place.

### **1.2.1 Tools for collecting data:**

We collected the necessary data for our research by focusing on three data collection instruments: documentary research, observation, and interview.

#### **a) Documentary research:**

The existing documentation helps us to choose our topic, explain the context for better understanding and to identify our research subject, and construct the theoretical and practical parts of our dissertation, we had access to various documentation (books, specialized journals, theses) that were available to us at the library of ENSM and other schools in the Koléa university hub.

Also, we have used some document from the company Algeria telecom such as “BALANCE SHEET FOR THE YEAR 2020-2022”, and “Balance sheet of the Commercial Department”, “Telecommunications/ICT Administrative Data Collection Guide 2020 edition by the International Telecommunication Union ITU”.

#### **b) Observing:**

«Observing is a process including voluntary attention and intelligence, oriented by a terminal or organizing objective and directed at an object to gather information».

We have used observation throughout our presence in the Department of Operational Directorate of Telecommunications D'ALGIERS CENTRE.

This tool allows us to understand very closely the functioning of the Telecom Algeria departments and more specifically, the process to measure the business performance in the DOT of Algeria Telecom .

### **c) The interview:**

The interviews carried out at DOT, were a significant component in collecting the required data on performance management and the various perspectives of the BSC to facilitate its development, in addition to the observation and documentary research.

We used the semi-structured interview technique, which involves open-ended questions on the topic of our study. This technique allows the interviewees to focus their discussion on different themes previously defined by the investigators and documented in an interview guide.

For our part, we interviewed executives and managers of The Commercial Sub-Directorate Telecom Algeria using an interview guide, allowing them to express themselves freely but trying to refocus each time the interviewee tends to drift away from the subject, and at the same time to extract the maximum of information from each interview.

#### **➤ Methods and Instruments Employed:**

We have chosen to use voice recording as a method for gathering data; however, there were some interviewees who declined to participate in voice recording. In such cases, we had to resort to manual data entry using a notebook.

#### **➤ The study population:**

The selection of interviewees is based on their job roles within the company and their relevance to our research topic, thus ensuring their capability to provide pertinent responses to our inquiries.

### **1.2.2 interview guide:**

- To conduct interviews with various managers at Telecom Algeria, we created an interview guide that focused on the company's strategy and the four perspectives of the BSC:
- Questions related to strategy
- Questions related to the financial
- Questions related to the customer
- Questions related to internal processes
- Questions related to organizational learning and human resources

. The development of our guide drew upon examples and methods proposed in books and scientific articles.

Our interview guide is included in Appendix A.

**TABLE 4: INTERVIEW DETAILS**

Date	Place	Interviewer	Duration	Position
10/04/2023	DOT	Manager 1	27min	Assistant Director of Commercial Sub-Department
10/04/2023	DOT	Manager 2	21min	Sales manager
10/04/2023	DOT	Manager 3	23min	Reporting Department Manager
30/04/2023	DOT	Manager 4	36min	Manager of Commercial Support Department
30/04/2023	DOT	Manager 5	21min	head of consumer sales department
30/04/2023	DOT	Manager 6	22min	Technical Sub-Director Manager
30/04/2023	DOT	Manager 7	25 min	Human Ressources Manager
23/04/2023	D.G Algeria Telecom	Manager 8	22min	Strategic Department Manager
23/04/2023	D.G Algeria Telecom	Manager 9	20 min	"Manager of Administration and Finance Department

Source : done by me

### 1.2.3 Data analysis and processing:

We have chosen the content analysis technique as the method of analysis since we try to analyze the comments as objectively as possible. To make data valuable knowledge, a semantic treatment

was adopted, following the lack of use of computer tools for this purpose, and the adoption of an empirical analysis.

The processing of qualitative data can be carried out from a semantic point of view, this means that the study of all the answers to the interviews will be done without the use of special software, and this, like many professionals and researchers before us who have opted for this treatment method.

## **2. Host Organization Presentation:**

Before starting the chapter that will focus on our case study, it is important to have an overview of the organization that welcomed us and where we carried out our internship.

This section will therefore aim to present the host organization Telecom Algeria in a general way, before zooming in on The Commercial Sub-Directorate Telecom Algeria where our main issue will be addressed. We will thus present the main points to know about the organization in question, including a presentation of its activities, and its structure.

### **2.1 Telecom Algeria presentation:**

**Algeria Telecom** is a leader in the Algerian telecommunications market, which is experiencing strong growth. It offers a complete range of voice and data services to residential and professional customers. This position has been built through a strong innovation policy that is tailored to customer expectations and focused on new uses.

#### **2.1.1 Creation and legal status:**

Algeria Telecom is a company with public capital SPA, (company per share ) operating in the market for electronic communications networks and services.

The creation was sanctioned by the law 2000/03 of August 5, 2000, setting the general rules relating to the postal service and telecommunications, as well as the resolutions of the National Council for State Holdings (CNPE) of March 1, 2001, establishing a public economic enterprise named **ALGERIA TELECOM**.

Therefore, Algeria Telecom is governed by these texts that give it the status of a public economic enterprise in the legal form of a joint-stock company with a share capital of 61 275 180 000 dinars and registered in the commercial register center on May 11, 2002, under the number 02B0018083.

In decision DG N: **123/17**

The CEO (Chief Executive Officer) decided:

- **Article 1:** The Operational Directorate is composed of three: Sub-Directorates, a security service, and a communication department.
  
- **Article 31:** The Commercial Sub-Directorate is composed of four departments:
  1. Planning and Monitoring Department
  2. Consumer Sales Department
  3. Commercial Support Department.

Algeria Telecom has established three distinct and self-governing entities to cater to the demands of its customers, namely:

- **RevSat** Space Telecommunications.
- **FIBRE** Internet.
- **MOBILIS** for mobile telephony.

### **2.1.2 Organization and organization chart of Algeria Telecom:**

Algeria Telecom is structured into central and regional divisions based on its fixed business lines and services.

#### **a) Divisions:**

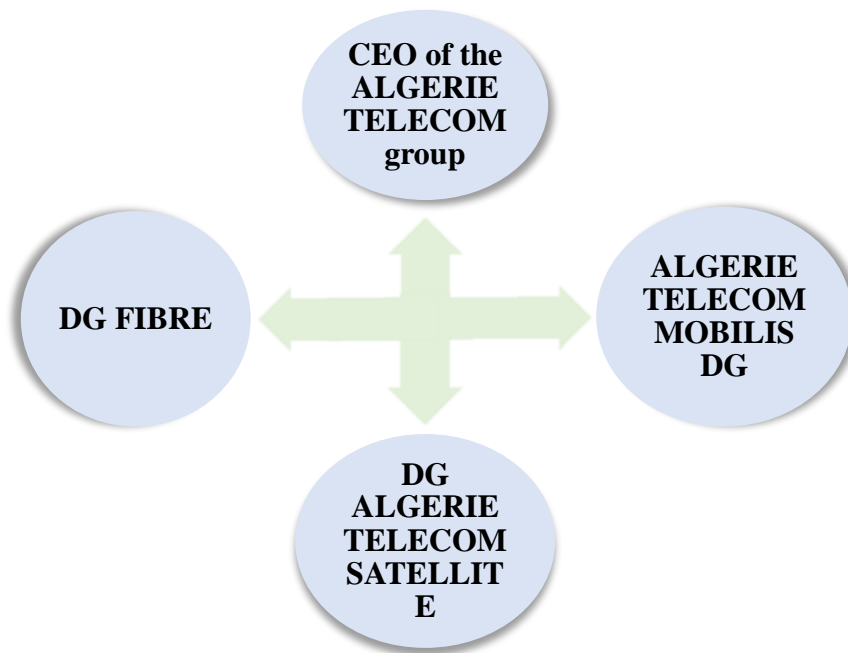
- Marketing and Commercial Action Division (DMAC).
- Telecommunications Network Development Division (DDRT).

#### **b) Central and Regional Divisions:**

Algeria Telecom is divided into 13 Telecommunications Territorial Directions (**D.R.T**), 50 Telecommunications Operational Units (**U.O.T**), and 174 Telecommunications Commercial Agencies (**ACTEL**) spread across the national territory.

In addition to this structure, three subsidiaries are added: Mobile (**MOBILIS**), Internet (**IDOOM FIBRE**), and space telecommunications (**REVSAT**).

**FIGURE 9: ALGERIA TELECOM SUBSIDIARIES**



*SOURCE : DONE BY ME FROM COMPANY'S DOCUMENT*

This group comprises advisors, mission officers, and three departments:

Marketing and Sales Department, General Administration Department, and Infrastructure and Network Department, which includes the Network Engineering and Development Division (**DIDR**) and the Network Maintenance Operations Division.

Additionally, there are 13 Delegated Regional Telecommunications Directorates in different regions, including:

- Algiers, Blida, Tizi Ouzou, Oran, Tlemcen, Bechar, Chlef, Setif, Constantine, Annaba, Ouargla, Laghouat, and Batna.

- Moreover, there are 60 Operational Telecommunications Directorates located in the provinces.

## **2.2 Presentation of the commercial sub-directorate:**

In this new organization, the existing commercial structures at the former DOT and DRT levels are merged into a single structure: the commercial sub-directorate.

The commercial sub-directorate is a continuation of the local commercial, marketing, and innovation department. Each commercial sub-directorate covers a specific scope of actions. It is responsible for executing the company's commercial strategy and proposing an action plan at the local level to achieve the set objectives.

### **2.2.1 organization of the commercial sub-directorate:**

included in the annexes A

### **2.2.2 The components of the Commercial Sub-Directorate:**

#### **1) The Consumer Sales Department**

This department ensures the proper handling of the customer throughout their journey (pre-sale, sale, and after-sale). It performs three main tasks:

- Management of the commercial network and customer relationship
- Sales and prospecting
- Stock management.

#### **2) The Corporate Department :**

This department plans, organizes, and ensures the execution of corporate actions. It handles requests from professional clients such as specific offers, processing requests, studying needs, etc. It also monitors the billing and collection operation and coordinates equipment acquisition with the Corporate Commercial Department (at the DG level) and other relevant structures.

#### **3) The Planning and Monitoring Department:**

This department proposes the commercial action plan at the end of the year for the following year and ensures the monitoring of the execution of the validated actions throughout the year on behalf of the "consumer sales" and "corporate" departments. Geomarketing missions at the local

level are carried out by this department. The designation of personnel working in this department is based on the following criteria.

#### **4) The Commercial Support Department:**

Ensures the proper operation of information systems and billings at the local level (DO, ACTELS, points of presence, etc.) as well as corrective follow-up of operational anomalies in information systems. It is also responsible for monitoring the billing and payment operations of the current fiscal year.

### **2.3 Telecom Algeria's Information System Applications:**

The information system employed by Telecom Algeria encompasses a plethora of applications, a few of which are worth highlighting:

#### **a) N.G.B. SS :**

The information system utilized by Telecom Algeria serves to carry out all commercial and financial operations, including accessing the status of customer accounts (i.e. activated, suspended, or deactivated).

#### **b) Moachir:**

Dashboard displaying all statistics (revenue, customer base, department performance).

c) **G.DOC:** Portal allowing to consult all the procedures of Algeria Telecom as well as the service notes.

d) **TAWSSOL:** All procedures and service notes of Algeria Telecom, as well as regulations, form downloads, and customer service, can be consulted through the portal.

### **2.4 Classification of commercial agencies:**

Currently, ACTELS are classified into three categories based on their customer base: "**Exceptional**", "**First Class**" and "**Outstanding**".

This classification is no longer suitable for the new directions and objectives set for this structure, for the following reasons:

- The rigidity of the evaluation method does not allow for the dynamic evolution of ACTELS between the different classes.

- Evaluation is based solely on the customer base and does not take into account other parameters related to the performance of the agency.
- The evaluation system does not encourage agency personnel to improve their performance.

The new classification of commercial agencies (ACTEL and attached presence points) will be done every year based on the performance achieved during the previous year. It takes into account the following three criteria:

- 1) The customer base (TLP+4G).
- 2) The agency's turnover.
- 3) The current year's cash receipts.

TABLE 5: ALGERIA TELECOM DATASHEET

<h1>Algeria Telecom</h1>	
Logo	
Slogan	“ Always Closer”
Legal Form	Joint-stock company
Creation	1 January 2003
Headquarters	National Road No. 5, Cinq Maisons, Mohammadia 16130, Algiers
Directorate	Adel Bentoumi (CEO of Algeria Telecom)
Subsidiaries	Telecom Group Algeria
Products	Marketing of telecommunications equipment and services for individuals, professionals, and interconnection with mobile operators.
Headcount	20,400 employees
Revenue	DZD 200.9 billion (2020)
Website	<a href="http://algeriatelecom.dz">algeriatelecom.dz</a>
Activity	Telecoms Operator

To provide context for our empirical research in the following chapter, the objective of this section was to gain a deeper understanding of our host organization, Telecom Algeria, particularly its commercial sub-division which is the focus of our work.

This enabled us to become more familiar with the organization, its goals, and practices, which will guide us further in our empirical research.

**Chapter03:**  
**PRESENTATION**  
**AND**  
**DISCUSSION OF RESULTS**

After presenting the research methodology, we will delve into the core of the empirical study, which will provide significant value to our investigation.

This chapter is structured into, first will focuses on the analysis and presentation of the results, which are crucial for accurately measuring business performance.

Then the implementation of BSC, and provide recommendations based on the results obtained.

### 1. Presentation of the interview results:

The following table presents the results of interviews conducted with the executives and managers of DOT and Algeria Telecom, according to strategic axes and objectives, to answer the questions related to our research.

The analysis of the results is based on the components of the BSC, which will allow us to subsequently design a model that contains all the strategic objectives with the appropriate performance indicators to ensure the management of performance at the DOT level object of our subject.

**TABLE 6: PRESENTATION OF THE INTERVIEW RESULTS**

strategic axis	Themes and objectives	Verbatim
<b>Strategy</b>	strategic	<p>"In terms of strategy, the department currently lacks a formalized strategy. The newly established strategy department within the general direction is currently not equipped to develop and implement a strategy specifically for our department. However, we do have an annual action plan in place that serves as a guide for our activities and assists us in achieving our objectives. Although a formal strategy may be absent, we remain dedicated to continuously enhancing our operations and exploring inventive approaches to</p>

		better serve our customers and contribute to the overall success of Algeria Telecom." - <b>Manager 1</b>
	Strategic Objectives	"We have identified a series of strategic objectives outlined in our annual action plans, all of which are designed to drive our financial performance and align with our revenue and profit margin targets." - <b>Manager 8</b>
	Vision	"Yes, we have a vision for the future. Our vision is to establish ourselves as the leading authority in the African gateway and emerge as a prominent player in the telecommunications industry. Moreover, we are dedicated to building stronger connections with the people of Algeria, ensuring that our services not only cater to their needs but also enhance their daily lives. Through the integration of our expertise, innovative solutions, and a customer-centric approach, we aim to shape a future where Algerians enjoy uninterrupted access to cutting-edge telecommunications services and enriching experiences." - <b>Manager 1</b>
	The deployment of the strategy and the action plans	"At DOT, our operational approach centers around the implementation of annual action plans instead of a singular strategy. This approach

		<p>enables us to maintain flexibility and adaptability in catering to the ever-changing demands of our customers and the dynamic market environment. Our action plans are meticulously designed to tackle key objectives and address challenges, encompassing a wide range of initiatives such as expanding our network, acquiring new customers, improving our services, and advancing our technological capabilities. By executing these action plans, we ensure that our endeavors remain in alignment with our goals, fostering sustainable growth, and consistently delivering outstanding value to our valued customers." - <b>Manager 7</b></p>
<p><b>Financial</b></p>	<p>Improve profit margin</p>	<p>"At DOT, improving our profit margin is a key focus. We have implemented various measures to reduce our operating expenses, which have had a positive impact on our profitability. By closely monitoring our financial performance, we use the net profit margin as a key indicator to measure our success. This metric allows us to assess the organization's earnings after deducting all expenses and provides valuable insights into our overall financial health. Our goal is to continuously enhance our profitability</p>

		and ensure sustainable growth for Algeria Telecom." - <b>Manager 8</b>
	Increase in turnover of DOT	"The turnover of DOT has been continuously growing for over 5 years. In the year 2022, this growth can be attributed to an increase in the number of clients and improved collection of customer receivables." <b>Manager 8</b>
	Reduce operating costs	"Operating costs are a crucial aspect of operations at DOT Algeria Telecom. These costs encompass various expenses necessary for the functioning and existence of our organization, including salaries, maintenance, supplies, and commercial services. Our consistent reduction in operating costs demonstrates our effective management of expenses. We achieve this through the development and implementation of yearly action plans that prioritize initiatives aimed at cost reduction and process improvement. By aligning our efforts with the annual action plan, we have successfully achieved a continuous decrease in operating costs." - <b>Manager 4</b>
	Improve customer satisfaction	"Operating costs are a crucial aspect of our operations at DOT Algeria Telecom. These costs encompass various expenses necessary for the functioning and existence of our organization, such as salaries,

<b>Customer</b>		<p>maintenance, supplies, and commercial services. Our consistent reduction in operating costs demonstrates our effective management of expenses. We achieve this through the development and implementation of yearly action plans that prioritize initiatives aimed at cost reduction and process improvement. By aligning our efforts with the annual action plan, we have successfully achieved a continuous decrease in operating costs."</p> <p style="text-align: center;"><b>- Manager 4</b></p>
	Expand Customer base	<p>"Expanding our customer base is crucial for our business growth. We understand that the number of customers directly impacts our physical sales of products, which in turn drives our overall sales and turnover. To achieve this, we focus on providing a range of products, including TLP+FTTH, ADSL+FTTH, and 4G, to cater to diverse customer needs. By offering reliable and innovative solutions, we aim to attract new customers and retain existing ones. Our goal is to continually enhance our offerings and expand our customer base, ultimately driving the success of our company." <b>Manager 2</b></p>
	Foster customer loyalty	<p>"Fostering customer loyalty is a key objective for us. We understand that by</p>

		<p>offering convenient and accessible recharge options, customers are more inclined to stay with our services and remain loyal. We prioritize providing a seamless and reliable recharge process, as it enhances the overall customer experience, builds trust, and fosters loyalty towards our company. Our commitment is to continuously improve and deliver the highest level of service that keeps our customers satisfied and loyal.” <b>Manager 2</b></p>
<p><b>Internal Business Process</b></p>	<p>The existence of dashboards for monitoring activities.</p>	<p>"At DOT and Algeria Telecom, the use of dashboards is currently absent. Our primary reliance is on activity reports, which involve gathering data from multiple sources and presenting it in a comprehensible manner, often in the form of tables, for analysis purposes."  - <b>Manager 3</b></p>
	<p>Enhance the competitiveness of the commercial network</p>	<p>“our primary focus is to enhance the competitiveness of our commercial network. We understand the importance of staying ahead in a highly competitive market. To achieve this objective, we are constantly striving to improve the performance and effectiveness of our network. We leverage the ranking of commercial agencies ACTELS to assess our progress and identify areas for</p>

		<p>improvement. By deploying advanced technologies, collaborating with local businesses, and offering customized solutions, we aim to provide reliable and high-quality services to our customers. Our goal is to create a commercial network that stands out in terms of competitiveness, ensuring customer satisfaction and sustainable growth." <b>Manager 4</b></p>
	<p>the development of the commercial network</p>	<p>“We've taken several measures to enhance network coverage, capacity, and service quality. Our team has deployed advanced technologies like fiber optics and 4G to meet growing demand. We've also partnered with local businesses and institutions to offer customized solutions. Our aim is to provide reliable, high-speed connectivity to residents and businesses in Alger Center, empowering them to succeed in the digital era.” <b>Manager 6</b></p>
	<p>Accelerate the pace of digital transformation in operations</p>	<p>“Using digital technologies and processes helps us make our work easier, faster, and better for our customers. We can use special tools and websites to do tasks automatically, organize our work efficiently, and learn important information from data. This change makes our team stronger, so we can do our jobs well, adapt quickly to</p>

		changes, and come up with new and creative solutions for our customers. We are dedicated to making this digital transformation happen so that we can stay competitive and give our clients the best service possible.” <b>Manager 5</b>
<b>Learning &amp; Growth</b>	Enhancing productivity	“We strive to provide our employees with the necessary resources, training programs, and opportunities to acquire new skills and knowledge. By investing in their professional growth and supporting their personal development, we aim to boost their productivity and effectiveness in their role.” <b>Manager 7</b>
	Enhancing the potential of employees	"We offer a diverse range of training programs that are customized to address the specific needs of our staff, such as professional Excel and cybersecurity training. These programs encompass various areas, including technical skills, leadership development, soft skills, and industry-specific knowledge." <b>Manager 7</b>
	Boosting staff morale	"We strongly believe in the importance of boosting staff morale as a critical factor in our team's success. We recognize that motivated and engaged employees are more productive, innovative, and committed to achieving our organizational goals. To enhance staff morale, we have

		<p>implemented several strategies and initiatives. By focusing on boosting staff morale, we aim to create a motivated and engaged workforce that drives organizational success." <b>Manager 7</b></p>
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**Source : done by me**

**1.1 Analysis of data collected through interviews:**

According to the gathering data, through interviews, Algeria Telecom does not have a dashboard. However, the managers at the DOT attach great importance to achieving the financial and commercial objectives set in the annual action plan through the monitoring of turnover. Two documents are prepared by the DOT: reporting and the activity report, which is transmitted quarterly to the General Directorate of Algeria Telecom. These reports have two main shortcomings:

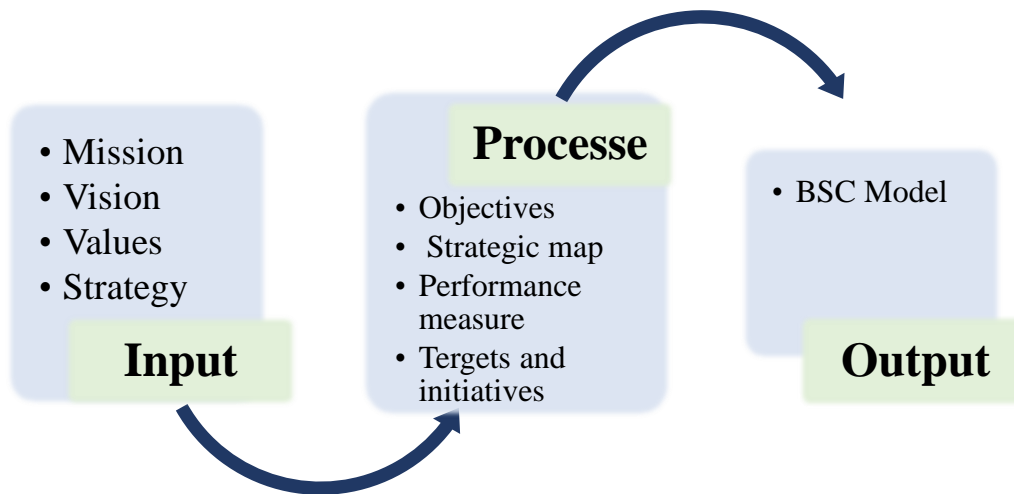
- The indicators often focus only on the outcome or progress indicators.
- Additionally, certain areas are not considered and therefore not measured.

We can conclude that the existing management control system does not allow for a comprehensive assessment of the overall performance of the DOT. Therefore, there is a need to implement a modern management control tool that is suitable for the DOT of Algeria Telecom, and that includes relevant and appropriate indicators.

Indeed, the absence of management control tools such as a balanced scorecard significantly hampers an organization's activities. Its presence enables an organization to track the progress of its activities and measure the performance level across various areas. Effective planning, monitoring, and control are essential aspects of management. In the context of the lack of a balanced scorecard at DOT, we propose the implementation of a prospective balanced scorecard incorporating reliable and actionable indicators distributed across four strategic perspectives according to the approach of Robert Kaplan and David Norton.

## 1.2 Approach Followed for Designing Algeria Telecom's BSC:

FIGURE 10: BALANCED SCORECARD IMPLEMENTATION PROCESS.



SOURCE : DONE BY ME

## 2. Proposed Approach for the Design of a Balanced Scorecard for the DOT at Algeria Telecom:

This section will examine the components of the Balanced Scorecard (BSC) and provide a systematic approach to identifying key performance indicators (KPIs) for each of the four perspectives. The analysis will utilize the Statement Quotation and Comment (SQC) technique, incorporating insights from interviews and compliance methods to elucidate the internal state of the company as expressed by officials and specific managers. Subsequently, the implementation of the Balanced Scorecard will be explored in detail.

### 2.1 Define Strategic Objectives:

Defining strategic objectives is a crucial step in the implementation of the Balanced Scorecard. It entails establishing precise, measurable, and aligned goals that support the organization's overall strategy. To identify strategic objectives for DOT Alger, Center using the Balanced Scorecard model.

### 2.1.1 Analysis of the Current Situation through SWOT:

The SWOT analysis, as a strategic analysis method, involves conducting an internal analysis to identify strengths and weaknesses, as well as an external analysis to identify threats and opportunities. This allows for the measurement of the potential opportunity that the implementation of a Balanced Scorecard as a tool for performance could represent for Algeria Telecom.

**TABLE 7: SWOT ANALYSIS OF THE ALGERIA TELECOM**

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Monopoly as the only fixed-line operator in Algeria</li> <li>• Wide network of points of sale across the country</li> <li>• Strong brand recognition and reputation in the telecommunications industry</li> <li>• Membership in the World Trade Organization (WTO)</li> <li>• Variety of services offered (internet, mobile, fixed line)</li> <li>• Strong financial position</li> <li>• An information system with a diverse range of applications that functions effectively.</li> </ul>	<ul style="list-style-type: none"> <li>• Service installation duration</li> <li>• Lack of competition</li> <li>• The management control system is limited to a few tools (general accounting, budgeting, and reporting).</li> <li>• Unavailability in rural areas.</li> <li>• Dependence on government funding and regulations</li> <li>• Limited competition in the market</li> <li>• Vulnerability to cable theft</li> <li>• The absence of a dashboard and the reliance solely on reporting</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Development of e-commerce and digital service</li> <li>• Collaboration with startups and young entrepreneurs</li> </ul>	<ul style="list-style-type: none"> <li>• Cable theft</li> <li>• Intense competition from mobile operators and other telecommunications companies</li> </ul>

<ul style="list-style-type: none"> <li>• Innovation in new products and services</li> <li>• Adoption of emerging technologies such as 5G and IoT</li> <li>• Opportunity for expansion (Africa)</li> </ul>	<ul style="list-style-type: none"> <li>• Impact of the COVID-19 Pandemic on the telecommunications industry</li> <li>• Rapidly changing technology and consumer preferences</li> <li>• Cybersecurity threats and data breaches</li> </ul>
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**Source:** done by me

### **-SWOT Grid Analysis of Algeria Telecom:**

Based on the SWOT analysis provided, some of the ambiguities and problems that persist at the level of Algeria Telecom include:

- **Lack of clarity in performance measurement:** absence of a clear framework or dashboard to evaluate the effectiveness of strategies.
- **Limited market competition:** reduced market pressure due to the absence of strong competitors.
- **Dependence on government funding and regulations:** limits autonomy and responsiveness to market demands.
- **Vulnerability to cable theft:** risk of service disruption and financial loss.
- **Unavailability in rural areas:** restricted reach and potential customer base.
- **Absence of a dashboard and reliance on reporting:** less effective in identifying areas for improvement.

### **-The key factors of success for Algeria Telecom:**

- Algeria Telecom holds a monopoly over the fixed-line network in Algeria.
- There is a widespread network of sales points across Algeria.
- Algeria Telecom offers diverse services, including internet mobile, and fixed-line, which offer customers multiple options and improve their overall experience.
- Strong brand recognition and reputation in the telecommunications industry
- Algeria Telecom benefits from strong government support, as the Algerian government is dedicated to advancing the country's ICT sector and digital transformation program.

### **2.1.2 Algeria Telecom's Vision:**

Vision for Algeria Telecom, which is a statement or description of what the company wants to achieve in the future, so we can mention:

- To be the leader in the African gateway.
- To maintain its position as a national leader in the field of ICTs
- To be at the forefront of technological advancements and adapt to the changing world of ICTs
- Incorporating young idea holders.
- To be "Always Closer" to Algerian citizens, by expanding its network and improving access to its services
- To contribute to the development and growth of the Algerian economy.

### **2.1.3 Algeria Telecom Mission:**

The main points of the mission of Algeria Telecom:

- To provide high-quality, reliable, and affordable telecommunications services to the Algerian population, businesses, and government entities.
- To constantly adapt to the rapidly-evolving ICT sector by developing and offering new and innovative products and services.
- To contribute to the socio-economic development of Algeria by supporting the growth of other sectors and promoting digital transformation.
- To maintain a strong national leadership position in the ICT industry by continuously improving our network infrastructure and services.
- To promote a culture of excellence, innovation, and social responsibility among our employees and stakeholders.
- To ensure the highest standards of customer satisfaction by providing effective and efficient customer service and support.
- To adhere to the highest ethical and professional standards in all operations and relationships.

#### **2.1.4 the Strategic Axis of Algeria Telecom:**

Based on the mission and vision statements of Algeria Telecom, the main strategic axes can be identified as follows:

- **Innovation and Development:** Algeria Telecom aims to continuously innovate and develop its products and services to meet the ever-changing needs of its customers.
- **Customer Satisfaction:** The company is committed to ensuring the satisfaction of its customers by providing high-quality products and services and responding to their needs in a timely and efficient manner.
- **Social Responsibility:** Algeria Telecom recognizes its responsibility to contribute to the development of the Algerian economy and society by providing reliable and affordable telecommunication services to the citizens of Algeria.
- **Human Resource Development:** The company values its employees and is committed to their professional development and growth, which contributes to the overall success of the organization.
- **Operational Efficiency:** Algeria Telecom is committed to improving its operational efficiency by adopting modern technology, enhancing its network infrastructure, and streamlining its processes to reduce costs and increase profitability.

These strategic axes guide the company's decision-making processes and provide a framework for achieving its goals and objectives.

#### **2.1.5 Strategic Orientations of DOT:**

The main strategic objectives aim to improve the performance and functioning of the Training Department in the medium term and establish a solid foundation for sustained long-term development. These objectives can be summarized as follows:

- Enhance operational performance
- Increase revenue
- Enhance customer satisfaction and loyalty by improving service quality and responsiveness.
- Foster innovation and technological advancements to stay competitive in the rapidly evolving telecommunications industry.
- Enhance employee skills and capabilities through training and development initiatives.

### **2.1.6 Translating DOT's strategic orientations into the four strategic perspectives of the Balanced Scorecard:**

The main strategic objectives for the DO in each of the four axes of the Balanced Scorecard can be summarized as follows:

#### **1) Financial Perspective objectives:**

Given that the financial perspective serves as the guiding axis for the other perspectives, we have selected three objectives for this axis. These objectives have been chosen because they enable better monitoring and improvement of the financial performance of Algeria Telecom's DOT:

- Improve profit margin.
- Increase in turnover.
- Reduce operating costs.

These objectives focus on enhancing the financial performance of the organization by improving profitability, increasing revenue generation, optimizing costs, and effectively managing debt. They aim to ensure the financial sustainability and success of the DOT within Algeria Telecom.

#### **2) Customer Perspective objectives:**

The different axes are interdependent. Indeed, the growth of the company relies on customer satisfaction, sales development, and profitability (market share, number of new customers, profitability rate in various segments, etc.).

The DOT company targets the following customer objectives:

- Expand customer base
- Improve customer satisfaction
- Foster customer loyalty

#### **3) Internal Business Process Perspective objectives:**

The focus is on examining the essential processes that contribute to sustaining a competitive advantage for the company. Innovation is a crucial process (emphasis on research, number of patents

filed, the proportion of new products, The main strategic objectives related to the internal process axis are:

- Development of the commercial network
- Accelerate the pace of digital transformation in operations
- Enhance the competitiveness of the commercial network

**4) Learning and growth perspective objectives:**

The Learning and growth perspective encompasses various factors aimed at enhancing employee effectiveness and facilitating the implementation of the strategy. We have identified the need to undertake specific actions, which include:

- Enhancing employee potential
- Engaging and motivating employees
- Enhancing productivity.

The table above summarizes all the objectives by Perspective:

**TABLE 8: ALGERIA TELECOM'S STRATEGIC OBJECTIVES**

Perspective	Objectives
<b>Financial Perspective</b>	<ul style="list-style-type: none"> <li>✓ Improve profit margin.</li> <li>✓ Increase in turnover.</li> <li>✓ Reduce operating costs.</li> </ul>
<b>Customer Perspective</b>	<ul style="list-style-type: none"> <li>✓ Expand customer base</li> <li>✓ Improve customer satisfaction</li> <li>✓ Foster customer loyalty</li> </ul>
<b>Internal Business Process Perspective</b>	<ul style="list-style-type: none"> <li>✓ Development of the commercial network</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Accelerate the pace of digital transformation in operations</li> <li>✓ Enhance the competitiveness of the commercial network</li> </ul>
<b>Learning and growth perspective</b>	<ul style="list-style-type: none"> <li>✓ Enhancing employee potential</li> <li>✓ Engaging and motivating employees</li> <li>✓ Enhancing productivity.</li> </ul>

**Source:** done by me

## 2.2 Algeria's Telecom Strategy Map:

By integrating the strategic objectives from the four perspectives, we can present a strategic map model for Algeria Telecom. The diagram below illustrates the strategic map, showcasing the various cause-and-effect relationships. The connections between the measures across the Strategy Map are established using a series of "if-then" relationship.



As the strategic map, the diagram, provided above, illustrates the logical alignment of all four perspectives in a suitable order that aligns with the nature of the company. In the case of Algeria Telecom, being a public commercial institution, the primary focus is on customers and meeting their needs to fulfill the company's mission. The underlying message is that all activities and initiatives, including financial aspects and revenue generation, are aimed at supporting and serving the customers. Each objective within the four perspectives is interconnected through cause-and-effect relationships. Therefore, it is evident that the strategic objectives identified from the learning and growth perspective, as well as the internal perspective, should form the foundation of Algeria Telecom's long-term strategy.

The successful performance of these two perspectives would result in significant advantages in the service delivery of Algeria Telecom and enable the achievement of a notable level of excellence. As a result, customer satisfaction will be enhanced, fostering customer loyalty. This improvement in customer satisfaction and loyalty is likely to lead to an expansion of the customer base and the potential to offer additional services.

The growth in customer base, along with improved customer satisfaction and expanded service offerings, will contribute to an increase in the organization's financial resources and enhance its economic profitability. This alignment between the financial perspective and the customer perspective will support the organization in achieving its strategic objectives and fulfilling its mission.

### **2.3 The selection and determination of performance indicators:**

It is important to identify, define, and monitor performance indicators. According to NIVEN (2002), a good indicator should meet the following criteria:

- It should be aligned with the strategy.
- It should be measurable.
- It should be easy to establish.
- It should be simple and clear.
- It should be relevant.
- It should be reliable.

As we have seen in theory, to manage the actions that lead to achieving strategic objectives, it is necessary to assign one or more indicators to each strategic objective. These

indicators allow for measurement and provide a meaningful target to be reached, enabling performance management.

Therefore, considering the strategic objectives of DOT, we have identified and specified performance indicators for each perspective of the balanced scorecard. This selection process was guided by three fundamental factors:

- The conceptual framework of the BSC model, guided the selection of indicators for each perspective (referencing Kaplan and Norton's books).
- The alignment of the indicators with the strategic objectives.
- The availability of information for each indicator within DOT.

In the tables below, we have grouped the proposed performance indicators for each strategic perspective.

**TABLE 9: FINANCIAL PERSPECTIVE INDICATORS:**

	<b>Objectives</b>	<b>Indicators</b>
<b>Financial perspective</b>	Improve profit margin	-The net profit margin
	Increase the Turnover	-Rate of increase Turnover
	Reduce operating costs	-Rate of change in charges

**Source:** Done by me

**TABLE 10: CUSTOMER PERSPECTIVE INDICATORS**

	<b>Objectives</b>	<b>Indicators</b>
<b>Customer perspective</b>	Increase the number of customers	- Evolution of sales by product
	Improve customer satisfaction	- The Evolution of reported disruptions in DOT from 2020 to 2022

		- disruption recovery time
	increase customer loyalty	- summary of recharge sales

Source: Done by me

**TABLE 11: LEARNING AND GROWTH PERSPECTIVE INDICATORS**

	<b>Objectives</b>	<b>Indicators</b>
<b>Learning and growth perspective</b>	Enhancing the potential of employees	- The number of training sessions
	Boosting staff morale	-Employee turnover rate
	Enhancing productivity levels	- Productivity ratio

Source: Done by me

**TABLE 12: INTERNAL BUSINESS PROCESS PERSPECTIVE**

	<b>Objectives</b>	<b>Indicators</b>
<b>Internal Business Process Perspective</b>	enhance the competitiveness of the commercial network	ranking of commercial agencies ACTELS.
	The development of the commercial network	Implementation of the action plan
	Accelerate the pace of digital transformation in operations	Rate of use of electronic remote services.

Source: Done by me

## 2.4 Tracking of Performance Indicator Changes:

To gain a better understanding of the indicators mentioned above, we will first present the various tables before creating the indicators for a balanced scorecard dashboard that we will establish.

### 2.4.1 Financial Perspective Indicators:

The financial perspective serves as the guiding axis for the other perspectives. We have identified four strategic objectives for this perspective:

- Improve profit margin
- Increase turnover
- Reduce operating costs

The financial perspective indicators selected to assess the financial performance of the DOT include:

#### a) The net profit margin:

The profitability measure we have chosen is the net profit margin. This metric determines what the organization earns after deducting all expenses, and it is calculated as follows:

$$\text{Net Profit Margin} = (\text{Net Profit} / \text{Turnover}) \times 100$$

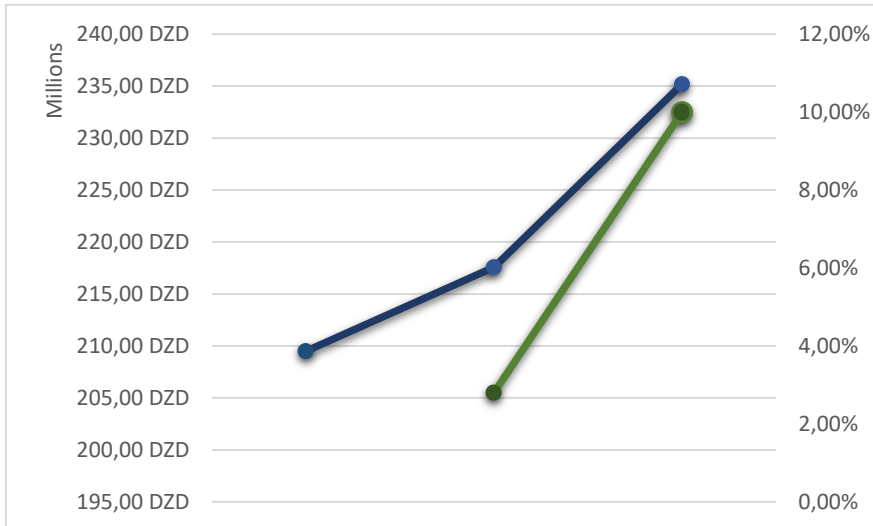
The net profit refers to the difference between the revenues and expenses of the DOT for a given accounting period. It is calculated as follows: Net profit = (operating profit + financial profit + exceptional profit) - corporate tax.

**TABLE 13: EVOLUTION OF THE NET PROFIT MARGIN OF DOT FROM 2020 TO 2020.**

Year	2020	2021	2022
net profit (DA)	209 030 000,00	217 050 000	235 950 000
Net Profit Margin %	/	0.82	1,32

**Source:** document given at company level.

**FIGURE 12: EVOLUTION OF THE PROFIT MARGIN OF DOT FROM 2020 TO 2020.**



**Source:** Elaborated from data obtained at the company level.

The graph presented shows that the profit margin of DOT experienced a slight increase in 2021 compared to 2020. This indicates that DOT was able to generate a higher percentage of profit from its revenue in 2021.

Furthermore, there is a further noticeable increase in the profit margin, This suggests that DOT's efforts to enhance its profitability were successful, These positive trends in the profit margin indicate improved financial performance and contribute to the long-term sustainability and success of the company.

From the results of the interview: "Improving our profit margin is a key focus for us at DOT. We have implemented various measures to reduce our operating expenses, which have positively impacted our profitability. By closely monitoring our financial performance, we use the net profit margin as a key indicator to measure our success. This metric allows us to assess the organization's earnings after deducting all expenses and provides valuable insights into our overall financial health. Our goal is to continuously enhance our profitability and ensure sustainable growth for Algeria Telecom." Manager 7

Manager 7's statement regarding the improvement in profitability at the DOT level through the implementation of various actions, including the reduction of operating expenses, supports the observation of an increase in the profit margin. This increase in profit

margin signifies enhanced financial performance for DOT, underscoring the significance of effectively managing costs. By successfully managing expenses, DOT was able to achieve a progressive increase in its profit margin over time.

**b) Increase turnover:**

The turnover of the Dot consists primarily of physical sales by product and corporate clients.

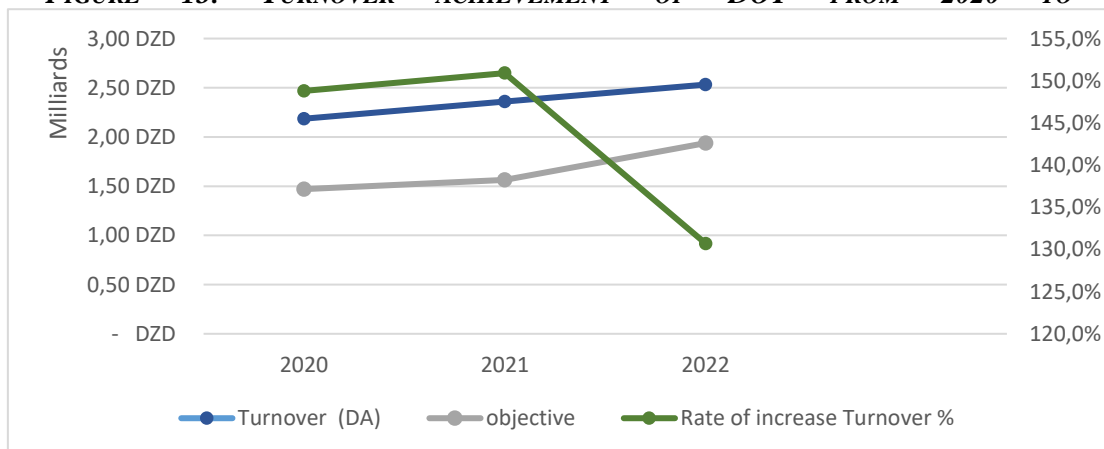
The following table shows the achievement of Dot turnover over 3 years from 2020 to 2022

**TABLE 14: TURNOVER ACHIEVEMENT OF DOT FROM 2020 TO 2022.**

<b>Year</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Turnover (DA)</b>	2 185 551 090	2 359 875 998	2 532 285 904
<b>Objective</b>	1 469 823 433	1 564 986 571	1 937 923 200
<b>Rate of achievement Turnover %</b>	148,8%	150,9%	130,7%

**Source:** document given at company level.

**FIGURE 13: TURNOVER ACHIEVEMENT OF DOT FROM 2020 TO 2022.**



**Source:** Elaborated from data obtained at the company level.

The graph presented displays the achievement of turnover in the DOT from 2020 to 2022. There has been a consistent increase in turnover during this period.

From the results of the interview: "The turnover of the DOT has been continuously growing for over 3 years, for the year 2022, due to an increase in the number of clients and improved collection of customer receivables." **Manager 7**

The consistent increase in turnover can be attributed to various factors, as mentioned by the interviewer. The successful increase in the number of clients and improved collection of customer receivables, possibly influenced by the implementation of e-payment services, have contributed to the growth in turnover for DOT.

**C) operating costs:**

Operating costs encompass all the expenses incurred by DOT for its existence and operations. This includes salary costs, as well as expenditures for maintenance, supplies, and various commercial services.

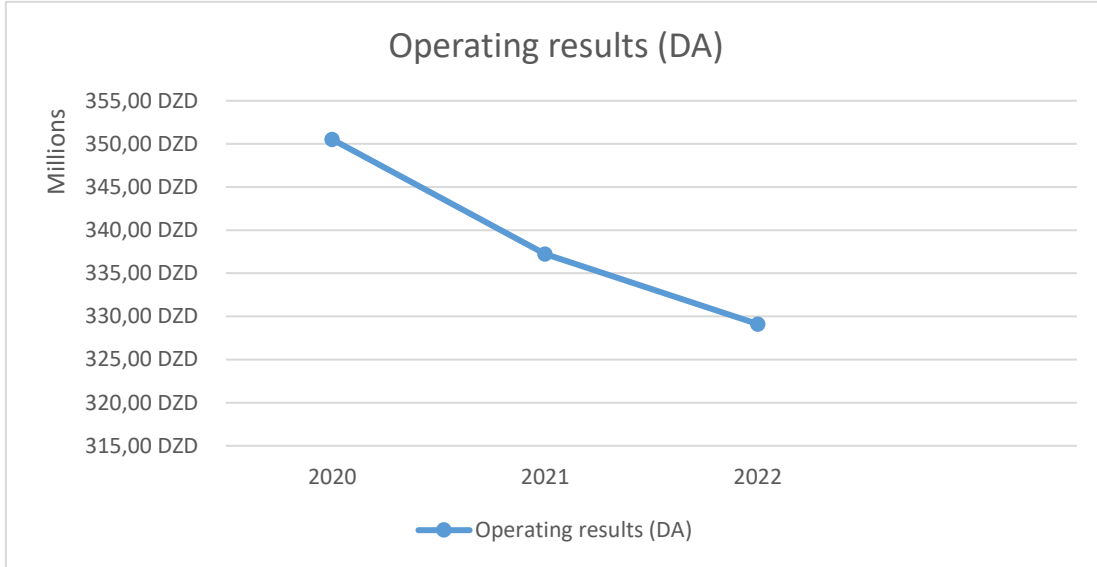
The table below shows the three-year operating costs for Dot from 2020 to 2022.

**TABLE 15: OPERATING COST EVOLUTION DOT FROM 2020 TO 2022.**

<b>Year</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Operating results (DA)</b>	350 519 675,82	337 224 683,45	329 109 509,23

**Source:** document given at company level.

**FIGURE 14: OPERATING COST EVOLUTION DOT FROM 2020 TO 2022.**



**Source:** Elaborated from data obtained at the company level.

In the graph presented, we observe the evolution of operating costs in the DOT from 2020 to 2022. There has been a consistent decrease in operating costs during this period.

This downward trend in operating costs in the DOT of Algeria Telecom from 2020 to 2022 may be attributed to various factors.

From the interview results: “Operating costs are a crucial aspect of our operations at DOT Algeria Telecom. These costs encompass various expenses necessary for the functioning and existence of our organization, such as salaries, maintenance, supplies, and commercial services. Our consistent reduction in operating costs demonstrates our effective management of expenses. We achieve this through the development and implementation of yearly action plans that prioritize initiatives aimed at cost reduction and process improvement. By aligning our efforts with the annual action plan, we have successfully achieved a continuous decrease in operating costs.” **Manager 4**

We can say that a consistent decrease in operating costs indicates that DOT has effectively managed its operational expenses. The interviewer's statement suggests that DOT follows an annual action plan instead of a specific overarching strategy. This implies that the organization focuses on developing and implementing action plans every year to drive

initiatives that reduce costs and improve processes. By aligning their efforts with the annual action plan, DOT has been able to achieve a continuous decrease in operating costs.

#### ❖ **The Situation of Financial Perspective in DOT :**

Based on the SQC analysis conducted on DOT Algeria Telecom, several significant findings emerge. From a financial perspective, DOT's balanced scorecard comprises three strategic objectives: improving the profit margin, increasing turnover, and reducing operating costs. The effectiveness of the organization's initiatives in enhancing profitability through cost reduction is evidenced by the supportive statement from the interviewer. Moreover, the sustained growth in turnover, fueled by an expanded customer base and improved receivables collection, signifies the positive outcomes of strategic endeavors. Collectively, these advancements in financial performance play a pivotal role in ensuring the long-term sustainability and prosperity of DOT.

#### **2.4.2 Customer perspective indicators:**

The customer perspective acts as the cohesive element connecting the other perspectives, and three strategic objectives have been identified:

- Increase the number of customers
- Improve customer satisfaction
- increase customer loyalty
- Then to enhance the assessment of these strategic objectives, we have chosen specific indicators for each of them.

##### **a) The number of customers:**

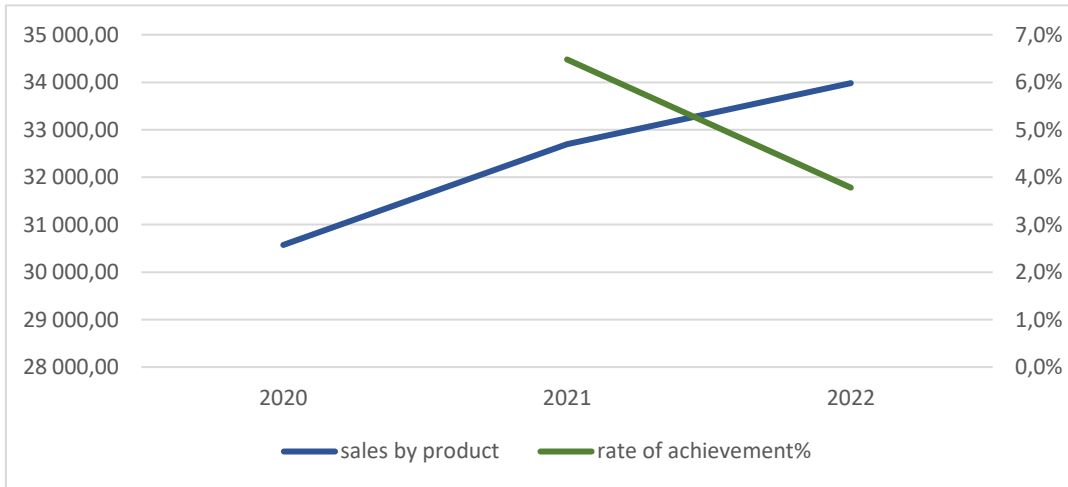
The number of customers is closely linked to the physical sales of products including TLP+FTTH, ADSL+FTTH, and 4G, to cater to diverse customer needs, this metric enables the company to boost its sales and overall turnover.

**TABLE 16: EVOLUTION OF SALES BY PRODUCT IN DOT FROM 2020 TO 2022.**

Year	2020	2021	2022
sales by product	30 573	32 693	33 981
rate of achievement%	/	6,48	3,79

**Source:** document given at company level.

**FIGURE 15: EVOLUTION OF SALES BY PRODUCT IN DOT FROM 2020 TO 2022.**



**Source:** Elaborated from data obtained at the company level.

The graph shows a significant increase in the total number of product sales from 2020 to 2022. However, when the achievement ratio is considered, it is observed that the ratio was higher in 2021 than in 2022.

The increase in total product sales is closely tied to the number of customers, contributing to the company's sales growth and overall turnover. However, it is worth noting that the achievement ratio was higher in a specific period.

According to Manager 2: "Expanding our customer base is crucial for our business growth. We understand that the number of customers directly impacts our physical sales of products, which in turn drives our overall sales and turnover. To achieve this, we focus on providing a range of products, including TLP+FTTH, ADSL+FTTH, and 4G, to cater to diverse customer needs. By offering reliable and innovative solutions, we aim to attract new

customers and retain existing ones. Our goal is to continually enhance our offerings and expand our customer base, ultimately driving the success of our company."

The statement highlights the link between the number of customers and the physical sales of products. It explains how providing a range of products to meet diverse customer needs enables the company to boost sales and overall turnover. The quotation from Manager 2 supports this by emphasizing the importance of expanding the customer base for business growth. The manager mentions focusing on offering reliable and innovative solutions to attract and retain customers, indicating a proactive approach to increasing the number of customers.

**b) Improve customer satisfaction :**

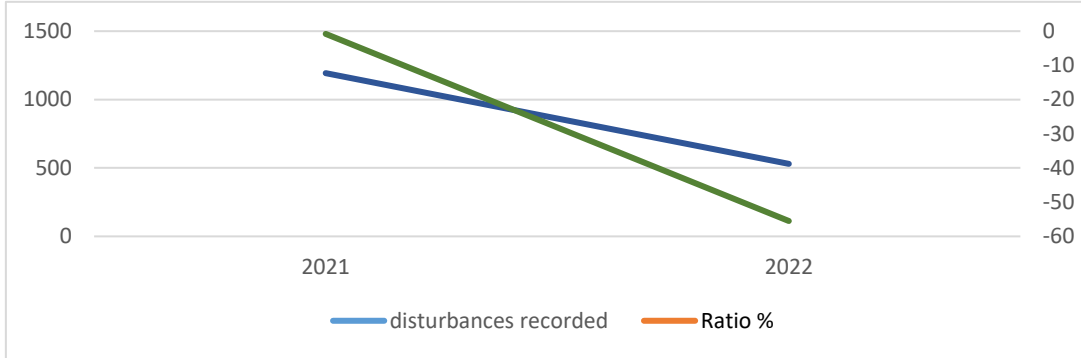
When there are fewer disruptions recorded, it indicates a more reliable and stable service, which can positively impact customer satisfaction. Additionally, a faster disruption recovery time means that customers experience shorter service interruptions, leading to higher satisfaction levels.

**TABLE 17: THE EVOLUTION OF REPORTED DISRUPTIONS IN DOT FROM 2020 TO 2022.**

Year	2021	2022
number of disturbances recorded	1193	530
Ratio %	/	- 55,5

**Source:** document given at company level.

**FIGURE 16: THE EVOLUTION OF REPORTED DISRUPTIONS IN DOT FROM 2021 TO 2022.**



**Source:** Elaborated from data obtained at the company level.

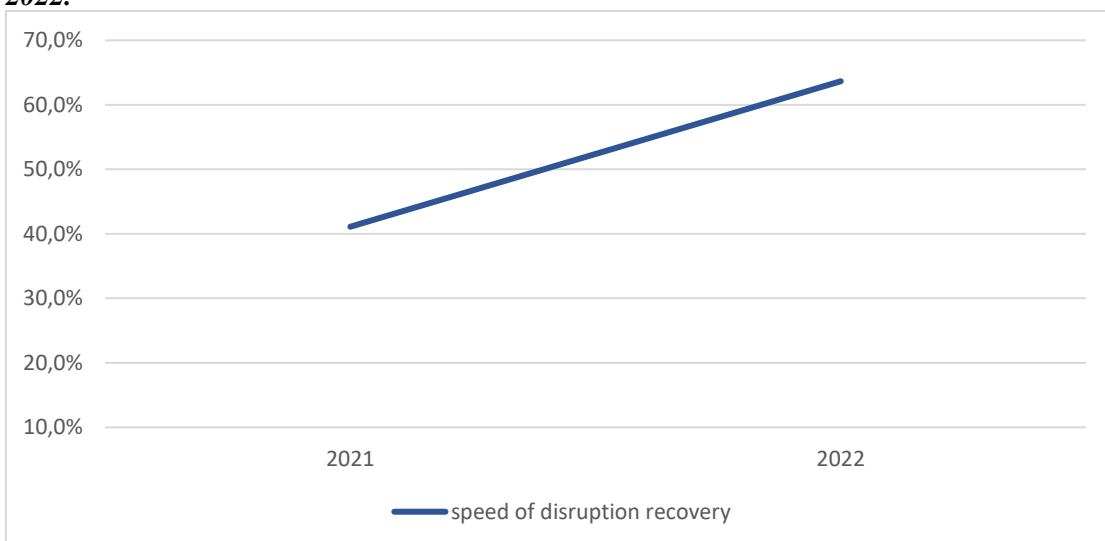
The graph displays a slight decrease in the number of disturbances in 2021, followed by a significant decline in 2022, as compared to the same period in 2021. This decline can be attributed to the modernization of 4,896 access points in 2021, leading to an improvement in service quality.

**TABLE 18: THE EVOLUTION OF THE DISRUPTION RECOVERY SPEED IN DOT FROM 2021 TO 2022.**

Year	2021	2022
speed of disruption recovery %	41,10	63,65

**Source:** document given at company level.

**FIGURE 17: THE EVOLUTION OF THE DISRUPTION RECOVERY SPEED IN DOT FROM 2021 TO 2022.**



**Source:** Elaborated from data obtained at the company level.

The graph illustrates a consistent and significant increase in the disruption recovery speed in DOT from 2021 to 2022, with a particularly notable improvement in 2022.

The frequency of reported disruptions and the speed of recovery is critical for ensuring a reliable and stable service, leading to enhanced customer satisfaction. There has been a notable decrease in disruptions, followed by a significant decline compared to the same period. Moreover, there has been a consistent and significant improvement in the speed of disruption recovery, demonstrating our commitment to providing a reliable service experience.

"At DOT, our primary focus is improving customer satisfaction. We strive to enhance the overall experience by implementing informative actions on our website and organizing sales campaigns at various locations. Through these initiatives, we address customer needs effectively and aim to leave every interaction with our services satisfying and valued. Additionally, we closely monitor reported disruptions to ensure a reliable and stable service. By minimizing disruptions and improving recovery speed, we aim to provide a seamless and uninterrupted experience, further enhancing customer satisfaction." - Manager 5

The statement acknowledges the importance of reducing disruptions and improving disruption recovery speed in providing a reliable and stable service. The graph confirms a decline in disruptions over the years, indicating an improvement in service quality. The quotation from Manager 5 aligns with this by emphasizing the company's focus on improving customer satisfaction. The manager mentions implementing informative actions and closely monitoring disruptions to provide a seamless and uninterrupted experience for customers.

**c) customer loyalty:**

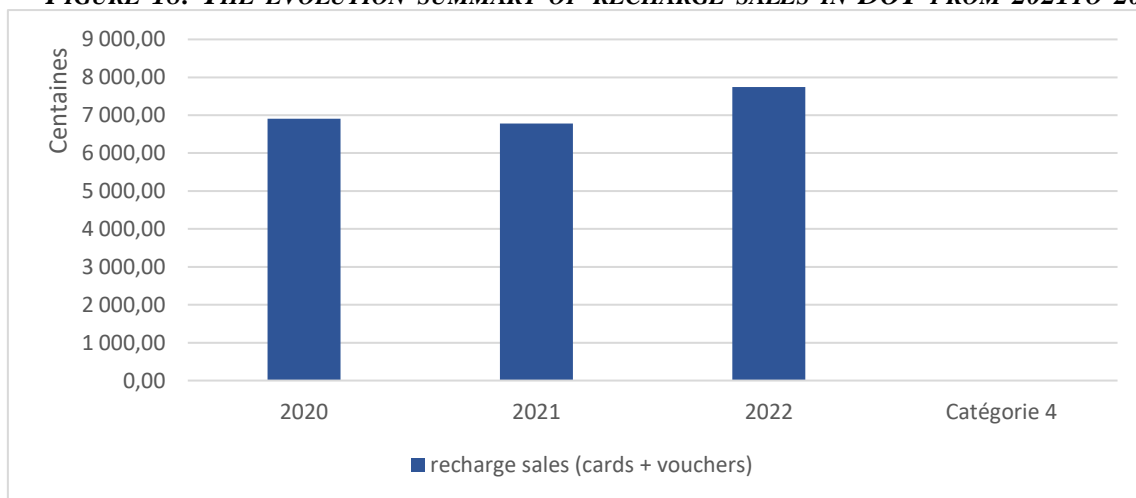
By providing convenient and accessible recharge options, customers are more likely to continue using the services and remain loyal to the company. Additionally, a seamless and reliable recharge process enhances the customer experience, leading to increased trust and loyalty toward the company.

**TABLE 19: THE EVOLUTION SUMMARY OF RECHARGE SALES IN DOT FROM 2021 TO 2022.**

Year	2021	2022
Summary of recharge sales (cards + vouchers)	678 331	774 773

**Source:** document given at company level.

**FIGURE 18: THE EVOLUTION SUMMARY OF RECHARGE SALES IN DOT FROM 2021 TO 2022.**



**Source:** Elaborated from data obtained at the company level.

The graph illustrates the sales of recharges (cards + vouchers) over the years. It is observed that in 2022, there was a noticeable increase in sales. This shift in sales indicates a change in customer behavior and demand for recharges.

Enhancing customer loyalty is a core objective through the provision of convenient and accessible recharge options. A reliable and seamless recharge process elevates the customer experience, fostering trust and loyalty toward the company.

"Our priority is to foster customer loyalty by offering convenient and accessible recharge options. We understand that a seamless and reliable recharge process enhances the overall customer experience, building trust and encouraging loyalty toward our company. Our commitment is to consistently improve and provide the highest level of service that ensures customer satisfaction and loyalty." - Manager 2

The statement highlights the significance of customer loyalty and emphasizes the role of convenient and accessible recharge options in achieving it. The graph validates this by showing upward trend in 2022. This shift in sales indicates a positive response to the company's efforts in providing a reliable and seamless recharge process. The manager's quotation reinforces the commitment to continually improve and deliver exceptional service to maintain customer satisfaction and loyalty.

#### ❖ **The Situation of Customer Perspective in DOT:**

The SQC analysis of DOT Algeria Telecom reveals key findings from a customer perspective, the analysis highlights the importance of customer-centric strategies for DOT Algeria Telecom. Expanding the customer base, improving sales performance, minimizing disruptions, and enhancing the recharge process is crucial for customer satisfaction and loyalty. By prioritizing the customer perspective and meeting their needs, the company can achieve sustainable growth and success.

#### **2.4.3 Internal Business Process Perspective indicators:**

The key strategic objectives associated with the internal process axis are:

- the development of the commercial network.
- enhance the competitiveness of the commercial network
- Accelerate the pace of digital transformation in operations

**a) The development of the commercial network:**

The indicators "Implementation of the action plan - Modernization component " and "Implementation of the action plan - Development component" refer to the progress and effectiveness of implementing the action plan for the modernization and development of the commercial network in DOT in 2021.

**TABLE 20 : IMPLEMENTATION OF THE ACTION PLAN IN THE MODERNIZATION COMPONENT.**

Modernization component	Year	2021
planned		137
realized		97
rate of achievement%		70,08 %

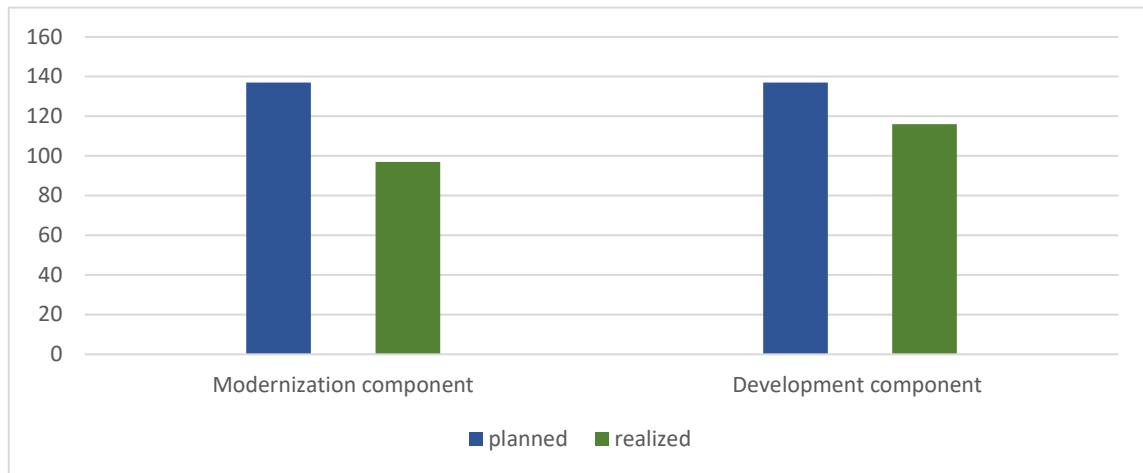
**Source:** document given at company level.

**TABLE 21 : IMPLEMENTATION OF THE ACTION PLAN IN THE DEVELOPMENT COMPONENT.**

Development component	years	2021
planned		137
realized		116
rate of achievement%		84,67 %

**Source:** document given at company level.

**FIGURE 19: THE EVOLUTION OF IMPLEMENTATION OF THE ACTION PLAN MODERNIZATION COMPONENT - DEVELOPMENT COMPONENT FOR 2021 IN DOT**



**Source:** Elaborated from data obtained at the company level.

In the graph illustrating the evolution of the implementation of the action plan for the modernization and development of the commercial network in DOT, it is observed that the rate of achievement was higher in both the Modernization component and the Development component for the year 2021. This indicates that a significant progress has been made in executing the planned actions and initiatives related to modernization and development

The "Implementation of the action plan - Modernization component" and "Implementation of the action plan - Development component" indicators monitor the execution of planned activities and initiatives aimed at modernizing and developing the commercial network. Through monitoring these indicators, the organization can evaluate the effectiveness of their efforts in enhancing the commercial network. The results obtained from these indicators offer valuable insights into the progress achieved and facilitate the identification of areas that can be further improved.

Manager 6 states, "We've taken several measures to enhance network coverage, capacity, and service quality. Our team has deployed advanced technologies like fiber optics and 4G to meet growing demand. We've also partnered with local businesses and institutions to offer customized solutions. Our aim is to provide reliable, high-speed connectivity to residents and businesses in Alger Center, empowering them to succeed in the digital era."

Manager 6's statement indicates a clear alignment between the implemented measures and the objectives of the indicators, thereby contributing to the development of the commercial network in DOT. The statement highlights that the steps taken to improve network coverage, capacity, and service quality, which include deploying advanced technologies and establishing partnerships with local businesses and institutions, are in line with the intended goals of the indicators. As a result, these measures are actively working towards enhancing the commercial network and driving its growth within the organization.

**b) Enhance the competitiveness of the commercial network**

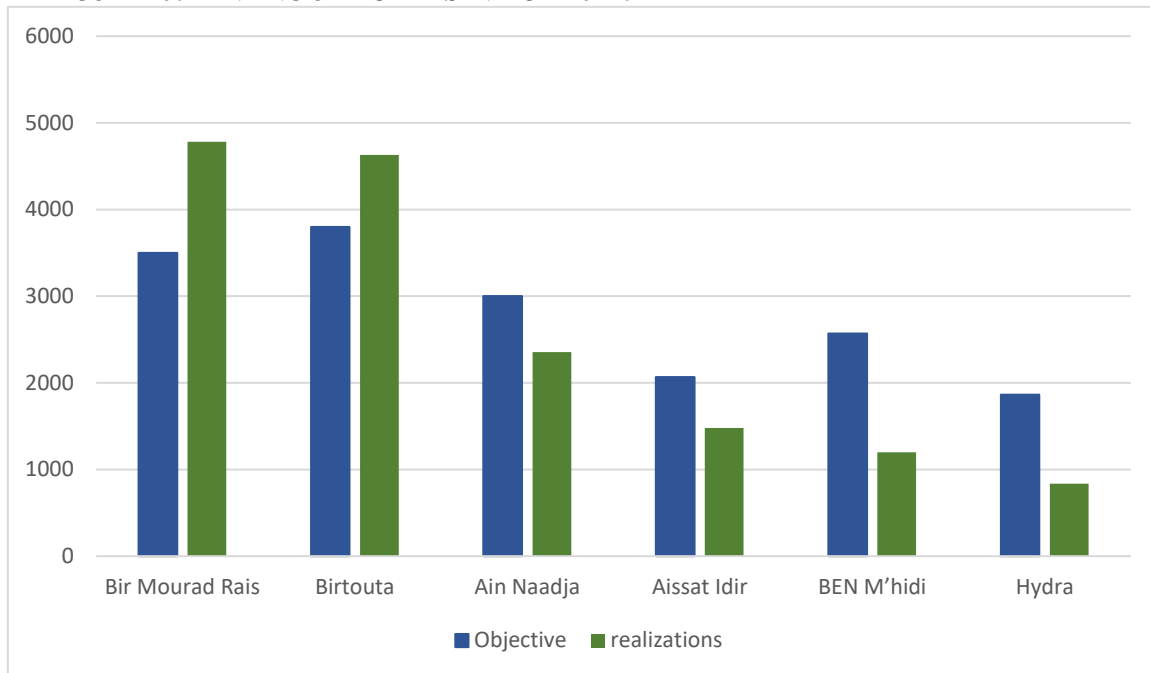
The development of the commercial network in DOT can be measured using the indicator of ranking of commercial agencies ACTELS, this indicator assesses the performance and competitiveness of different commercial agencies within the network. it's provides valuable insights into the effectiveness of the commercial network development efforts. By analyzing the rankings of the ACTELS.

**TABLE 22: RANKING OF ACTELS IN DOT 2022 (TOP/FLOP)**

<b>ACTEL</b>	<b>Objective 2022</b>	<b>realizations</b>	<b>rate</b>	<b>ranking</b>
<b>Bir Mourad Rais</b>	3 500	4 782	136,62%	Top
<b>Birtouta</b>	3 800	4 631	121,86%	Top
<b>Ain Naadja</b>	3 000	2 354	78,46%	TOP
<b>Aissat Idir</b>	2 065	1 480	71,67%	TOP
<b>BEN M'hidi</b>	2 570	1 197	46,57%	Flop
<b>Hydra</b>	1 865	835	44,77%	Flop
<b>Total</b>	16 800	15 279	90,94%	/

**Source:** document given at company level.

**FIGURE 20: RANKING OF ACTELS IN DOT 2022.**



**Source:** Elaborated from data obtained at the company level.

The graph illustrates the objective and realizations of the "ACTEL" indicator for the year 2022, highlighting the top-ranking agencies (Bir Mourad Rais, Birtouta, Ain Naadja, and Aissat Idir) and the lower-ranking agencies (BEN M'hidi and Hydra). This information serves as a basis for identifying areas of success and improvement in developing the commercial network among the mentioned agencies.

To enhance the competitiveness of the commercial network by leveraging the ranking of commercial agencies ACTELS. By using this indicator, the goal is to continuously improve the performance and effectiveness of the commercial network. The aim is to achieve higher rankings for the commercial agencies within the network, ultimately leading to a stronger and more competitive commercial network.

The Manager 4 "Our primary focus is to enhance the competitiveness of our commercial network. We understand the importance of staying ahead in a highly competitive market. To achieve this objective, we are constantly striving to improve the performance and effectiveness of our network. We leverage the ranking of commercial agencies ACTELS to assess our progress and identify areas for improvement. By deploying advanced technologies, collaborating with local businesses, and offering customized solutions, we aim to provide reliable and high-quality services to our customers. Our goal is to create a

commercial network that stands out in terms of competitiveness, ensuring customer satisfaction and sustainable growth."

The manager acknowledges the significance of competitiveness in the commercial network and emphasizes their commitment to enhancing it. The utilization of the ACTELS ranking indicator allows them to evaluate the network's performance and identify areas for development. By leveraging advanced technologies, partnerships with local businesses, and tailored solutions, the manager aims to deliver reliable and high-quality services. The objective is to create a commercial network that excels in terms of competitiveness, ultimately ensuring customer satisfaction and facilitating sustainable growth.

**c) Accelerate the pace of digital transformation in operations:**

The "Rate of use of electronic remote services" can be used as an indicator to measure the acceleration of digital transformation in operations. This indicator reflects the extent to which electronic remote services, such as online transactions, application, and self-service options, are being utilized by customers and employees within the operations of the organization. It is calculated using the following formula:

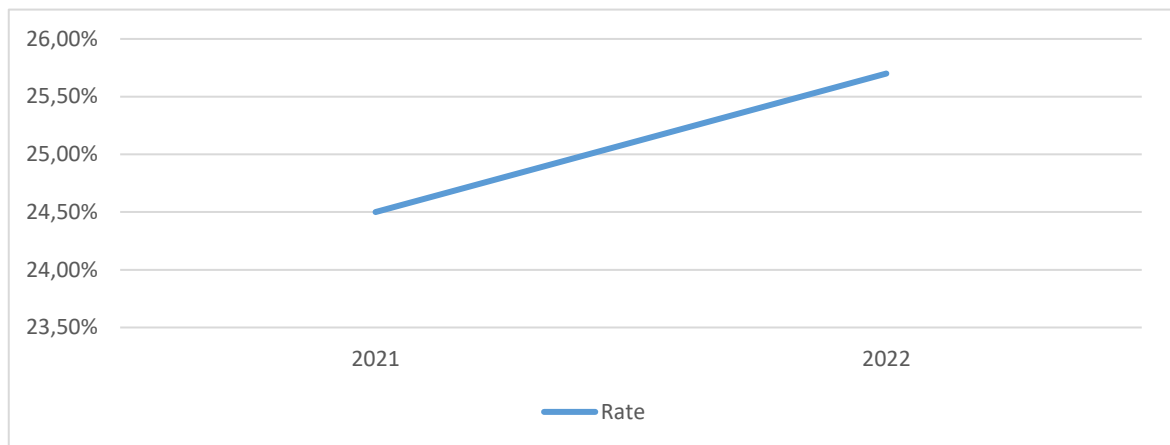
$$\frac{\text{Number of transactions carried out online}}{\text{Number of transactions carried out at the counter}}$$

**TABLE 23: RATE OF USE OF ELECTRONIC REMOTE SERVICES BY ALGERIA TELECOM CUSTOMERS**

Years	2021	2022
Rate of use of electronic remote services %	24,5 %	25,7%

**Source:** document given at company level.

**FIGURE 21: RATE OF USE OF ELECTRONIC REMOTE SERVICES BY ALGERIA TELECOM CUSTOMERS**



**Source:** Elaborated from data obtained at the company level.

Measuring the "Rate of use of electronic remote services" indicator can help achieve the goal of accelerating the pace of digital transformation in operations. This indicator indicates how much electronic remote services, such as online transactions, applications, and self-service options, are being utilized by customers and employees within the organization's operations.

"Using digital technologies and processes helps us make our work easier, faster, and better for our customers. We can use special tools and websites to do tasks automatically, organize our work efficiently, and learn important information from data. This change makes our team stronger, so we can do our jobs well, adapt quickly to changes, and come up with new and creative solutions for our customers. We are dedicated to making this digital transformation happen so that we can stay competitive and give our clients the best service possible." - Manager 5

The manager recognizes the importance of digital transformation in operations and highlights its benefits for both the organization and its customers. The "Rate of use of electronic remote services" indicator serves as a measure of the progress made in accelerating this transformation. By leveraging digital technologies, the manager aims to improve efficiency, adaptability, and problem-solving capabilities within the team. The focus is on providing exceptional service and maintaining competitiveness by embracing digital advancements and delivering the best possible experience to clients

❖ **The Situation of the Internal Business Process Perspective in DOT:**

In DOT, the Internal Business Process Perspective indicators emphasize digital transformation, competitiveness, and network development, with a focus on leveraging technology, partnerships, and tailored solutions to deliver high-quality services and ensure customer satisfaction. Advanced technologies, partnerships with local businesses, and tailored solutions are leveraged to provide reliable and high-quality services, ultimately ensuring customer satisfaction and facilitating sustainable growth. The implemented measures demonstrate a clear alignment with the indicators' objectives, actively contributing to the development and growth of the commercial network in DOT.

**2.4.4 Learning and growth perspective indicators:**

The Learning and growth perspective encompasses various factors aimed at enhancing employee effectiveness and facilitating the implementation of the strategy. We have identified the need to undertake specific actions, which include:

- Enhancing the potential of employees
- Boosting staff morale
- Enhancing productivity levels

**a) Enhancing the potential of employees:**

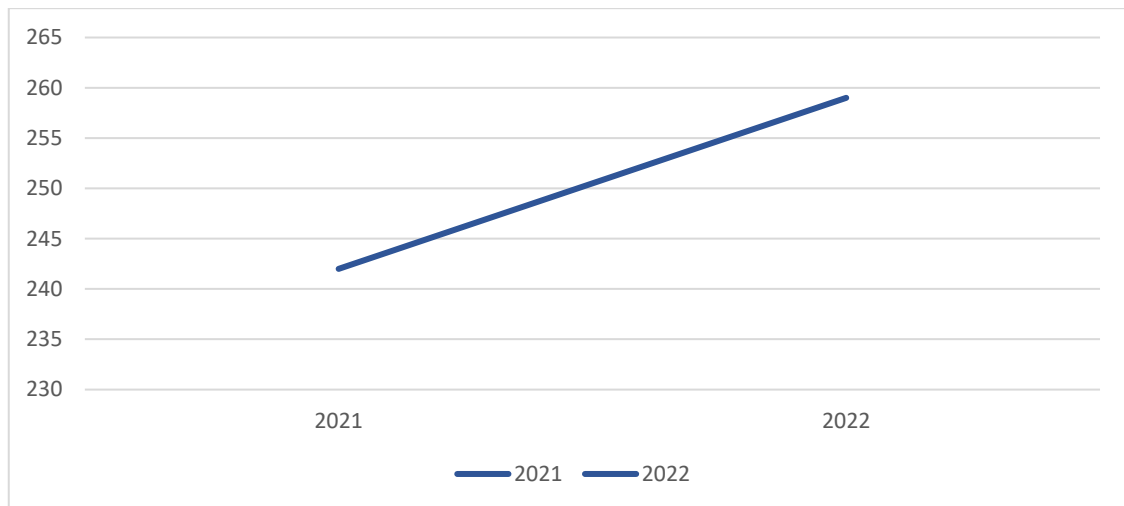
The number of training sessions conducted annually can serve as an indicator to measure the impact on improving staff potential. By tracking the number of training sessions held within a specific timeframe, and this depends on the needs.

**TABLE 24: NUMBER OF TRAININGS IN THE DOT**

Year	2021	2022
number of training	242	259

**Source:** document given at company level.

**FIGURE 22: NUMBER OF TRAININGS IN DOT**



**Source:** Elaborated from data obtained at the company level.

The graph illustrates the trend of the number of training sessions conducted annually from 2021 to 2022. During this period, there is a consistent increase in the number of training sessions held each year. This upward trend can be attributed to the recognition of the need to upgrade skills and knowledge through training on a yearly basis.

Tracking the annual count of training sessions can serve as a gauge to assess the influence on enhancing staff potential. The frequency of training sessions conducted within a designated period, tailored to meet specific needs, plays a crucial role in this evaluation.

"We offer a diverse range of training programs that are customized to address the specific needs of our staff, such as professional Excel and cybersecurity training. These programs encompass various areas, including technical skills, leadership development, soft skills, and industry-specific knowledge." - **Manager 7**

Manager 7 highlights the organization's commitment to providing tailored training programs that cater to the specific needs of their staff. By offering a diverse range of training opportunities, including technical, leadership, and soft skills, the organization recognizes the importance of addressing various areas to enhance staff potential. This approach aligns with the understanding that a well-rounded skill set contributes to improved performance and productivity. By tracking the number of training sessions conducted annually and

customizing them based on staff needs, the organization can effectively measure and enhance the impact on staff potential.

**b) Boosting staff morale:**

Employee turnover rates can be an indirect indicator of the effectiveness of efforts to boost staff morale, by monitoring changes in turnover rates over time, organizations can gain insights into the impact of their efforts to boost staff morale, and to calculate employee turnover rates:

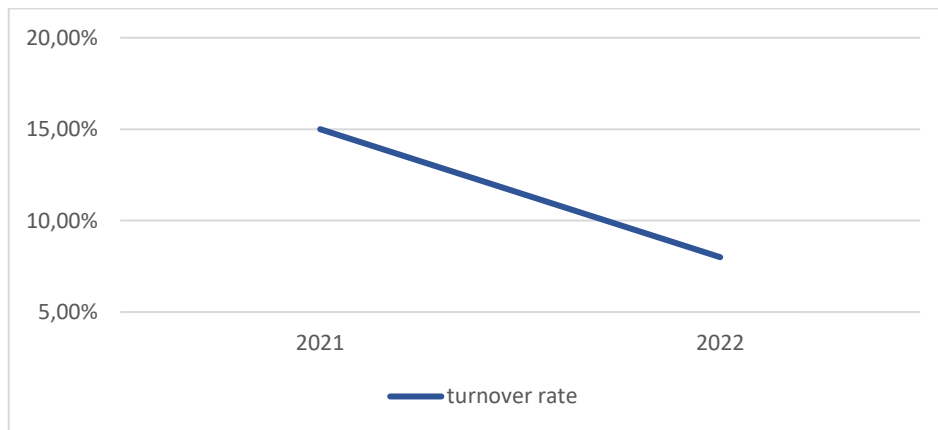
$$\text{Turnover Rate} = \left( \frac{\text{Number of Employees Who Left}}{\text{Average Number of Employees}} \right) \times 100$$

**TABLE 25: EMPLOYEE TURNOVER RATE IN THE DOT IN 2021 & 2022**

Year		2021	2022
Employee turnover rate		15%	8%

**Source:** document given at company level.

**FIGURE 23: EMPLOYEE TURNOVER RATE IN THE DOT IN 2021 & 2022**



**Source:** Elaborated from data obtained at the company level.

The graph illustrates a positive trend in employee turnover rates from 2021 to 2022, showing a decline from an initial rate of 15% to a lower rate of 8%. This decrease in turnover rates reflects the successful impact of initiatives aimed at improving staff morale and retention within the organization.

Boosting staff morale is a critical factor in the organization's success. A decrease in employee turnover rates reflects the successful impact of initiatives aimed at improving staff morale and retention within the organization."

"We strongly believe in the importance of boosting staff morale as a critical factor in our team's success. We recognize that motivated and engaged employees are more productive, innovative, and committed to achieving our organizational goals. To enhance staff morale, we have implemented several strategies and initiatives. By focusing on boosting staff morale, we aim to create a motivated and engaged workforce that drives organizational success." - **Manager 7**

The manager's statement emphasizes the significance of staff morale in driving the organization's success, aligning with the understanding that motivated employees contribute to improved performance and outcomes. By measuring indicators like training sessions and turnover rates, the organization can assess the effectiveness of its efforts to boost staff morale and make informed decisions for continuous improvement.

**c) Enhancing productivity levels:**

The productivity ratio can serve as a measure of productivity levels, By tracking the changes in the productivity ratio over time, businesses can assess whether their efforts to enhance efficiency and effectiveness have resulted in an improvement in overall productivity.

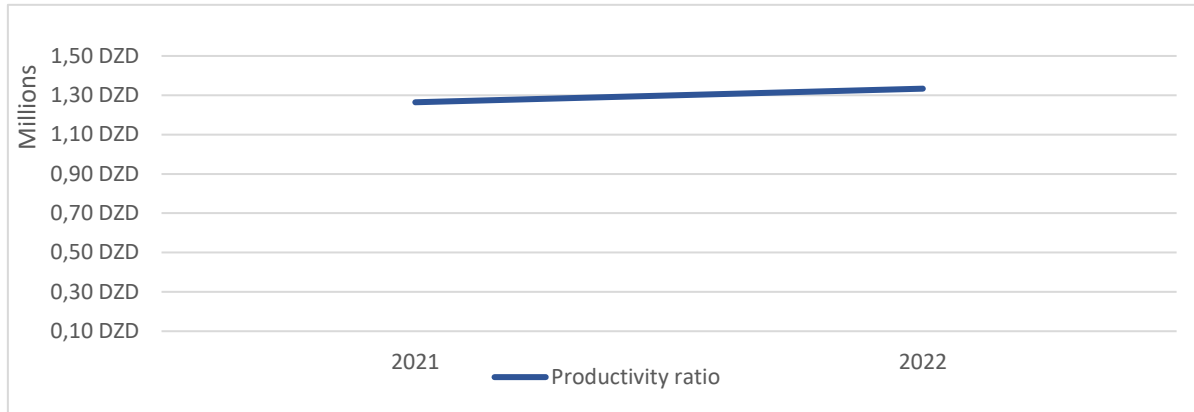
$$\text{Productivity ratio} = \text{Turnover} / \text{Number of employees}$$

**TABLE 26: PRODUCTIVITY RATIO IN THE DOT IN 2021 & 2022**

<b>Year</b>	<b>2021</b>	<b>2022</b>
<b>Productivity ratio</b>	1,26 Million	1,33 Million

**Source:** document given at company level.

**FIGURE 24: PRODUCTIVITY RATIO IN THE DOT IN 2021 & 2022**



**Source:** Elaborated from data obtained at the company level.

The graph illustrates the productivity ratio for the objective of enhancing productivity levels from 2021 to 2022. Over this period, there is a consistent increase in the productivity ratio, indicating a positive trend in achieving the goal of enhancing productivity.

The organization has witnessed a consistent increase in the productivity ratio, indicating a positive trend in achieving the goal of enhancing productivity.

(Manager 7): “We strive to provide our employees with the necessary resources, training programs, and opportunities to acquire new skills and knowledge. By investing in their professional growth and supporting their personal development, we aim to boost their productivity and effectiveness in their role.”

The manager's statement aligns with the observed increase in the productivity ratio, suggesting that the organization's focus on employee development and providing the necessary resources has contributed to the improved productivity levels. The investment in training programs and personal development has likely enhanced the employees' skills and effectiveness, leading to higher output relative to the resources employed. This positive outcome indicates successful progress in achieving the objective of enhancing productivity.

#### ❖ **The Situation of Learning and growth Perspective in DOT:**

The Learning and Growth Perspective in DOT demonstrates a strong commitment to employee development and continuous improvement. The organization recognizes the

importance of providing resources, training programs, and tailored opportunities for staff to acquire new skills and knowledge. By investing in their professional growth and supporting personal development, DOT aims to boost employee productivity and effectiveness. The organization tracks indicators such as the number of training sessions conducted, turnover rates, and employee satisfaction to assess the effectiveness of their efforts and make informed decisions for ongoing improvement. The observed increase in the productivity ratio further indicates the positive impact of these initiatives on enhancing productivity levels. Overall, DOT's focus on learning and growth contributes to a motivated workforce, improved performance, and organizational success.

### 3. Balanced Scorecard proposed model:

Based on the selection and definition of performance indicators, we propose the following balanced scorecard for DOT. This modern management tool is essential for the organization to measure the business performance, The table provides a summary of the strategic objectives for each perspective along with their respective indicators.

**TABLE 27: BALANCED SCORECARD PROPOSED TABLE FOR ALGERIA TELECOM.**

Perspective	Strategic objective	Indicators	Forecast	Realization	Target
					▲ ▼ ▲
<b>Financial perspective</b>	Improve net profit	Evolution of the profit margin	200 Million DA	235 Million DA	<b>119,75</b> % ▲
	Increase the Turnover	Rate of increase Turnover	1,93 Billion DA	2,53 Billion DA	<b>130,7</b> % ▲
	Reduce operating costs	Operating cost evolution	350 Million DA	329 Million DA	<b>93,9%</b> ▲
	Increase the number of customers	sales by product	25 700 product	33 981 product	<b>132,2</b> % ▲

<b>Customer perspective</b>					
	Improve Customer satisfaction	The Evolution of reported disruptions	1 193	530	<b>44,42</b> % ▼
		The evolution of the disruption recovery speed	41,10%	63,65%	<b>1,54%</b> ▲
	customer loyalty	Summary of recharge sales (cards + vouchers)	678 331	774 773	<b>114,2</b> % ▲
<b>Internal Business Process Perspective</b>	The development of the commercial network	Implementation of the action plan (Modernization component + Development component)	274	213	<b>97,4%</b> ▲
	Enhance the competitiveness of the commercial network	ranking of ACTELS	16 800	15 279	<b>90,9%</b> ▲
	Accelerate the pace of digital transformation in operations:	Rate of use of electronic remote services %	24,5%	25,7%	<b>104</b> % ▲
<b>Learning and growth perspective</b>	Enhancing the potential of employees	The number of training sessions	242 Sessions	259 Sessions	<b>107,0</b> % ▲
	Boosting staff morale	Employee turnover rate	15%	8%	<b>53,33%</b> ▲

	Enhancing productivity levels	Productivity ratio	1,26 Million	1,33 Million	<b>105</b> % ▲
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**Source:** Done by me

Based on the 12 objectives across the four perspectives and the associated 14 indicators, managers at DOT now have a comprehensive tool that provides an overview of the organization's performance. These indicators, both outcome-oriented and driving, enable them to assess past performance and predict future levels of performance, reflecting a proactive and visionary management style that aligns with universal requirements. However, for the Balanced Scorecard (BSC) to effectively translate the strategic directions of the organization, it is crucial to cascade it down to each sub-directorate and department. This approach ensures that all components of the organization embrace the strategic objectives of the leadership. Each individual will then have a clear understanding of their contribution and the resulting implications.

#### **4. Recommendations and Suggestions for Implementing the Balanced Scorecard:**

The main recommendations derived from our literature review and discussions with managers, along with the suggestions proposed by us, and These recommendations draw inspiration from a doctoral study conducted by (Timothy J.Zorek in 2020), (Sarah E. Johnson .2021):

- **Develop a clearly defined business strategy:** Clearly articulate the business strategy for the DOT, including measurable strategic objectives that align with the overall goals of Algeria Telecom. This will provide a clear direction and focus for the DOT's operations.
- **Establish measurable strategic objectives:** Define specific and measurable objectives that reflect the DOT's role within Algeria Telecom. These objectives should be aligned with the overall business strategy and highlight what is critical for the DOT's success.
- **Communicate the strategy and objectives:** Ensure effective communication of the DOT's strategy and objectives to all stakeholders within the organization. This

includes employees, managers, and other relevant departments. Clear and consistent communication will help create understanding and alignment throughout the organization.

- **Assign a change leader:** Designate a dedicated leader or project manager within the DOT to oversee the implementation of the Balanced Scorecard and monitor its progress. This person will be responsible for managing the change initiative and ensuring its successful completion.
- **Foster a culture of communication:** Encourage open and transparent communication within the DOT. This includes promoting regular feedback, sharing of information, and encouraging collaboration among team members. A culture of communication will facilitate the effective implementation of the Balanced Scorecard and support its ongoing success.
- **Evaluate and adapt the implementation:** Continuously evaluate the effectiveness of the Balanced Scorecard implementation within the DOT. Monitor key performance indicators, collect feedback from stakeholders, and make necessary adjustments to improve its effectiveness over time. Regular evaluations will help identify areas for improvement and ensure that the implementation stays aligned with the DOT's objectives.
- **Leverage technology and data:** Utilize appropriate technology and data management systems to support the implementation of the Balanced Scorecard. This includes using tools for data collection, analysis, and reporting, as well as ensuring data accuracy and accessibility. Technology can enhance the efficiency and effectiveness of the implementation process and provide valuable insights for decision-making.

By implementing these recommendations, Algeria Telecom's DOT can optimize the effectiveness of the Balanced Scorecard and drive improved performance and alignment with the organization's overall goals.

## **5. Overall Study Summary:**

Upon the culmination of our research endeavors regarding the development of a balanced scorecard model within the context of Algeria Telecom, we can discern with profound scientific and practical interest various synthesized elements. Notably, we ascertain the

presence of a deficit in the organization's managerial, organizational, and human systems. This deficit is not fortuitous; rather, it is intricately linked to the absence of a comprehensive and integrated strategy.

In light of our research findings, it is evident that a comprehensive and integrated strategic approach is crucial for organizational performance. Management, viewed as both an art and a practice, goes beyond mere rules and procedures in the operation of an entity or economic enterprise. Instead, it serves as a dynamic process of attentiveness and adaptability to the demands and complexities imposed by the broader environment and specific market conditions. Effective management involves continuously assessing and responding to these factors, ensuring alignment with organizational goals and fostering sustainable success.

A sound managerial policy is built upon attentive observation of both the internal and external environments of an organization. Achieving objectives requires a comprehensive understanding, synthesis, and informed decision-making. This approach provides the necessary foresight to determine the starting point, desired outcome, and effective strategies to properly plan, organize, and implement corrective measures as needed. Strategic and operational indicators play a pivotal role in this process, guiding managers to make informed decisions and take appropriate actions.

The implementation of a balanced scorecard as a management tool and a quest for effectiveness, efficiency, and performance in general, provides managers on the ground with tangible benefits. It serves as a reliable means of tracking, regulating, and steering the company's activities. By managers with the necessary insights to make informed decisions and proactively drive organizational success.

Our empirical study conducted at Algeria Telecom reveals notable shortcomings, specifically in terms of managerial orientation and the establishment of a comprehensive activity monitoring framework within the organization. The prevailing approach within the organization tends to be more administrative and reliant on traditional management practices. It is evident that the practices implemented by Algeria Telecom's managers are not entirely attuned to the organization's specific needs and the broader environmental requirements.

The emphasis on day-to-day management takes precedence over a comprehensive and well-thought-out policy that aligns with short-term, medium-term, and long-term objectives.

Moreover, this perspective leans more toward mechanistic thinking rather than organic, as employees are often viewed as mere factors of production with whom communication is deemed necessary, but their needs in terms of training, career management, or decision-making are neglected.

Based on an assessment of the operations of the DOT during our practical internship, we have determined that this organization lacks a management control system that meets modern managerial requirements. It is essential to recognize the close connection between management control, also known as performance management, and the Balanced Scorecard (BSC) through proactive and forward-looking research efforts.

Presently, despite the efforts made by the organization in measuring the activity of the DOT at Algeria Telecom, it remains insufficient as it relies primarily on traditional budgetary management, lacking a modern management control approach. This disparity, which is the subject of our analysis, is a significant aspect to consider in our research. It represents an organizational obstacle that hampers the pursuit of harmony, balance, and cost optimization within the studied DOT at Algeria Telecom. Therefore, it necessitates careful consideration and reflection within the organization.

Our field research has allowed us to identify that the prevailing approach within the management thinking of the DOT is primarily linear and technical, lacking a systemic and holistic managerial approach. In our view, this approach remains deficient as it primarily relies on accounting and financial practices, specifically within their traditional framework.

In the same vein, it should be noted that Algeria Telecom should invest more in the training and development of its management and employees at all levels of operation. This can be achieved by gradually adopting management tools, including the Balanced Scorecard (BSC), and operational practices. Such measures aim to enhance the organization's activity dynamics and enable it to meet the increasingly complex demands of its environment.

In addition to these analytical elements, it is worth noting that among the organizational obstacles faced by Algeria Telecom and DOT in their daily management, there is a deficit in information flow management, particularly in terms of statistical monitoring of activities.

The activity monitoring within the DOT does not yet meet the requirements of its operations. This can be attributed to the lack of activity measurement indicators and the

absence of ratios that align with the standards and requirements of a universally recognized dashboard.

It is also noteworthy, within the scope of this study, to highlight the efforts in communication and information flow management.

In this regard, according to the results of our research, it is evident that communication practices, both on an interpersonal and collaborative level as well as on an organizational and hierarchical level, reflect a deficit in communication and feedback generation in the effort to transmit information flows. This observation aligns with the findings of “Octave G linier”, an expert in the field, as highlighted in his book "La strat gie sociale de l'entreprise." The management of the organization is a central concern in strategic considerations for the functioning of the organization. To ensure the continuous dynamics of the company, it is essential to have a strong and competent management team.

Finally, our main contribution has been to develop and propose a Balanced Scorecard to the DOT that meets its needs for an appropriate tool for the monitoring and management of its activities. This proposed Balanced Scorecard takes into account the specific requirements and objectives of the DOT, allowing for a comprehensive and strategic view of its performance. By implementing this tool, the DOT will be able to align its activities with its strategic objectives, measure its progress, and make informed decisions based on relevant performance indicators. The proposed Balanced Scorecard serves as a valuable framework for effective performance management and supports the DOT in achieving its goals efficiently and effectively.

Lastly, our main contribution was to measure the business performance with a balanced scorecard in the DOT, which meets its needs for an appropriate tool for the monitoring and management of its activities.

The present chapter allowed us to apply our theoretical knowledge in the field of business and gain insights into the reality of the field within a telecommunications organization.

The main observation we made is that our organizations are currently operating within a traditional and administrative management framework, led by managers. However, there is a need to shift towards a more modern, strategic, and visionary management approach. This transition can be facilitated by essential and revolutionary tools such as the Balanced Scorecard, which serves as a guide and a reflection of organizational activities. It enables effective monitoring and responsiveness, ultimately leading to the achievement of expected performance and goals.

# CONCLUSION

In this research, our objective was to measure the performance of the DOT (Department of Telecommunications) in Algeria Telecom using the Balanced Scorecard model.

We have proposed a management tool based on The Kaplan and Norton model, also known as the Balanced Scorecard, widely used in various fields, to the DOT of Algeria Telecom. By adopting this model, the DOT of Algeria Telecom can benefit from a comprehensive performance measurement system that aligns with its strategic objectives.

In order to gain insights into performance measurement and management, we conducted interviews with key individuals within the DOT. These interviews provided valuable information regarding the organization's current practices, as well as the challenges and opportunities for improvement that exist within the organization.

Furthermore, we conducted on-site observations to deepen our understanding of the DOT's operations and identify potential areas for enhancing performance. Through these observations, we obtained a holistic view of the organization's strengths, weaknesses, and areas in need of improvement.

By combining the insights gathered from interviews and on-site observations, we were able to obtain a comprehensive understanding of the DOT's performance landscape. This analysis served as a foundation for our subsequent research and the development of our proposed management tool.

Theoretical exploration has shed light on the valuable contributions of the balanced scorecard in enhancing performance, particularly in the context of governmental institutions where financial indicators may not be the primary focus. Through practical implementation, we have substantiated the effectiveness of the balanced scorecard as a powerful tool for identifying shortcomings and obstacles that hinder the achievement of objectives. This has been accomplished through the establishment of a comprehensive set of indicators linked to each selected objective, which were developed through iterative discussions with senior managers. The balanced scorecard serves as a wake-up call, bringing attention to areas requiring improvement and providing a framework for strategic decision-making and performance enhancement.

Despite the success of our work in exploring the adoption of the balanced scorecard (BSC) as a performance measurement tool and the consistency of our results with prior studies conducted in other parts of the world, there are several limitations that should be acknowledged and addressed in future research.

-The selection of indicators was constrained and not optimally aligned to achieve the most favorable outcomes. This limitation stemmed from the limited availability of relevant information specially in DOT and the confidentiality constraints at the organizational level.

-The present study primarily employed qualitative methods to explore the adoption of the balanced scorecard (BSC) as a performance measurement tool. However, it is important to acknowledge the need for incorporating quantitative methods in future research to provide a more comprehensive understanding and obtain newer insights in this domain. By employing quantitative methods, researchers can gather numerical data, conduct statistical analyses, and derive more precise conclusions.

The limitations identified in our study, such as the small sample size and reliance on subjective perceptions, can serve as a foundation for conducting further investigations into the adoption of the BSC. By addressing these limitations and incorporating quantitative methods, researchers can delve deeper into the topic, examine larger samples, and obtain more objective and quantifiable data. This would allow for a more robust analysis of the relationships between BSC adoption, organizational performance, and strategic outcomes.

Therefore, future studies could build upon the existing qualitative findings and expand the research scope by incorporating quantitative methodologies. This would enable researchers to explore the adoption of the BSC in a more rigorous and comprehensive manner, providing additional insights and strengthening the empirical evidence in this field.

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# APPENDIX A

# Interview guide

I am a student, second-year Master's student at ENSM, specializing in Strategic Management and Information Systems

As part of our thesis, we are conducting a survey on "Measuring business Performance with the Balanced Scorecard Model".

What is your position in the company? \*

How many years of seniority do you have? \*

## **1. Questions related to strategy**

- What are the main strategic objectives of Algérie Télécom?
- Does Algérie Télécom have a vision for the future?
- Does Algérie Télécom have an action plan?
- Is the strategy being implemented at Algérie Télécom?
- How do you verify the implementation of the strategy at the operational level?
- Is Algérie Télécom performing well? How do you evaluate its performance?
- What performance measurement indicators do you use at Algérie Télécom?
- In your opinion, what is the usefulness of implementing a balanced scorecard within the management of Algérie Télécom?

## **2. Questions related to the financial axis**

- What are the strategic objectives of this department?
- How does Algérie Télécom optimize profitability?
- How has the revenue of Algérie Télécom evolved? What are the factors related to this evolution?
- Do you have indicators to answer these questions? If yes, which ones?

- How does Algérie Télécom increase customer debt recovery?
- How is financial management handled within Algérie Télécom?

### **3. Questions related to internal processes axis**

- What are the strategic objectives of this department?
- Do you have a map of the internal processes of Algérie Télécom?
- Do you have dashboards that allow you to monitor the activity of Algérie Télécom?
- If yes, are they regularly communicated to managers? How is the reporting done?
- What actions have been implemented to improve customer satisfaction?
- How do you plan to improve the quality of your services?
- Do you have business process managers?
- Do you have procedure manuals for all your processes? Please briefly describe each procedure.

### **4. Questions related to organizational learning axis**

- What are the strategic objectives of this department?
- Does Algérie Télécom have a general and formalized HR policy?
- What is the social climate within Algérie Télécom?
- Is there a global employee training plan?
- What training programs have been followed within Algérie Télécom during the last 5 years?
- Is Algérie Télécom staff able to cooperate and work in groups for the success of a common project?

### **5. Questions related to the customer axis**

- What are the strategic objectives of this department?

- What is the evolution of the number of Algérie Télécom customers over the past three years?
- What is the possible increase for this year?
- How does Algérie Poste develop its image with its customers?
- Do you have indicators to answer such questions? If yes, which ones?
- What are the main actions taken to achieve the defined objectives?

# APPENDIX B

## Organization Of the commercial sub-directorate (ACTEL)

