

Balanced scorecard and strategic intelligence : performance levers for the
algerian company. Case of the sonatrach group

BOUROKBA Rafika^{1*}, DERGHOUM Mahfoud²

¹ MAGIPO Laboratory, ESC Koléa,(Algeria) , rafika.bourokba@ummto.dz

² MAGIPO Laboratory, ESC Koléa,(Algeria), derghoum1959@gmail.com

Received: 16/02/2025

Accepted: 19/03/2025

Published : 01/06/2025

Abstract :

The balanced scorecard (BSC), long seen as a measurement and control tool, focused mainly on financial performance. Evolve to become a central strategic intelligence tool, but above all as an integrated platform for anticipation and better decision-making.

The article explores how to optimize the (BSC) by integrating strategic intelligence to strengthen the competitiveness and performance of the company, particularly the Sonatrach group.

A qualitative study will be carried out to analyze the synergies and interdependence between these two tools, highlighting their contribution in transforming information into effective actions for better performance.

Keywords: Management control; Performance; Balanced scorecard; Strategic intelligence; Sonatrach group.

Jel Classification Codes: L1, L2, D8

1. INTRODUCTION

* Corresponding author

The context of globalization requires companies to make constant adjustments to manage their performance. To meet this challenge, they must adopt tools capable of detecting, analyzing and anticipating changes in their environment. Among these tools, the prospective dashboard and strategic monitoring prove to be particularly effective, better directing the company towards obtaining a competitive advantage.

The problem explored here is to understand how companies can use the balanced scorecard (BSC) to move from a simple performance measurement to real strategic anticipation. ? In other words, for us it is a question of understanding the relationship between the dashboard and strategic monitoring in the quest for performance within Sonatrach.

The hypothesis put forward is that strategic monitoring constitutes an essential source of information allowing the (BSC) to construct relevant performance indicators.

This study is structured around three parts: first, the examination of BSC indicators as performance evaluation tools; then, the analysis of strategic monitoring and its role in obtaining a competitive advantage; finally, the exploration of the relationship between these two tools, illustrating their complementarity in improving performance, in this case at Sonatrach group.

2. The balanced scorecard: a relevant tool for corporate performance in the information age

Information useful to the company does not systematically reach it in a ready-to-use form. The company must constantly engage in active research to detect weak signals and derive relevant information which will be used to obtain a competitive advantage. The strategic monitoring process rightly supports this quest.

In fact, the problem of information continues to be posed to companies. They face both the management of excessive information flows and the very nature of this information: Indeed, the abundance of information available to the company could, in some cases, become a hindrance.

To overcome this constraint, the company must have an efficient information system capable of capturing the information flow and supplying other systems within the company responsible for processing and utilizing this information. The balanced scorecard would be one of these tools, filtering information to retain only the relevant data in its various sections, which would then feed the company's decision-making centers and strategies. Strategic monitoring and the balance scorecard, a duo whose advantages we will discover to improve the company's performance. Let's start by presenting the conceptual framework of the dashboard, the definition of the balance scorecard and finally its role in performance management.

2.1. The balanced scorecard : The emergence of the concept

An important management control tool, the balance scorecard is at the heart of the management and performance evaluation process.

Balanced scorecard and strategic intelligence : Performance levers for the algerian company. Case of the Sonatrach Group

It is an instrument that contributes to managing the overall performance of the company. Presented in the form of indicators, it enables the measurement of all performance configurations and to assist decision-makers in their decisions.

Focused on the company's strategy, the main objective of the dashboard is to translate the business manager's project(s) into a coherent set of performance and management indicators.

The dashboard manages information directly by providing a sort of “instantaneousness” of a given situation (immediate information), thus making it possible to globally identify the context.

According to (Fernandez, 2005, p. 35) « The balanced scorecard is a performance measurement instrument facilitating the “proactive” management of one or more activities as part of a progress approach. It helps reduce uncertainty and facilitate the risk-taking inherent in any decision. It is a decision-making tool. »

A tool for constructive discussions and trigger for an investigation in the event of observed malfunctions, the dashboard makes it possible to take the necessary measures in the event of deviations and to identify appropriate corrective actions. It structures the information thus limiting the “uncertainty” factor. By rationalizing risk-taking, it facilitates the forecasting of the company's strategy through a global view of the situation, ultimately minimizing the risk associated with decision-making. It is an instrument for comparison and continuous improvement.

In his book (Morin, 2021) defines the Balanced Scorecard « as a tool used to design and supervise strategy...as a decision-making tool that measures performance in order to assess the progress made and the progress still to be made in achieving set objectives. It presents the elements needed to judge the situation in relation to these objectives, thus helping to reduce uncertainty and provide a better appreciation of the risks involved in decision-making »

The balanced scorecard is a decision-making and forecasting support tool, it gives its user the ability to project and obtain information favoring the establishment of forecasts. In this regard, (Leroy, 2001, p. 35) emphasizes that « the dashboard constitutes the pivot of predictive and controlled management ». By continuously focusing managers' attention **on** the decisive aspects of their management and after analyzing the crucial values (flashing), this tool contributes to the implementation of corrective actions of decisions set by the company and to their achievements.

The balanced scorecard must be adapted to the needs of its recipient since it is intended to be a tailor-made instrument. Presented in a summary manner, it must contain relevant performance indicators called key success factors (KFS). Its content must enable the desired performance to be achieved.

The need for management as close as possible to action has encouraged companies to increase the number of dashboard construction initiatives. The BSC provides insights into

the measurement of the company's activity and the possibility of comparing it to a forecast while ensuring that what should be achieved has actually been achieved.

For our part, we retain focus the one whose indicators would highlight the role of monitoring in their development, in this case the method of the Strategic Dashboard.

This method is practical to implement is also the one that is used the most in management control at a strategic level. It is complemented by two other levels, generally applied across three horizons : budgetary control and the operational dashboard.

2.2. The balanced scorecard : Company performance measurement tool

The Balanced Scorecard finds its origins in the concerns troubling management sciences since the mid-1980s in general, and management control in particular. It was implemented in 1992 by two American researchers (R. Kaplan & D. Norton). They developed a method for designing a balanced scorecard, drawing inspiration from the work of Michael Porter relating to the value chain model.

In the approach developed by these two authors, The balanced scorecard proposes to retain the axes supporting managers in their approach to making strategic decisions. It identifies four axes ; a financial axis, a customer axis, a process axis and an organizational learning axis. By directly linking the balanced scorecard with the strategic control of the company, it is possible to identify a new framework : the balanced scorecard. (See infra. P.5).

The balanced scorecard makes it possible to translate the manager's objectives and project(s) into a set of measurement indicators (FCS), performance and management.

Thus, the balanced scorecard is « a stimulating management tool which highlights the importance of seeking balances between short term and long term, financial and non-financial criteria, or even major indicators and marginal indicators. From an internal perspective, it provides the opportunity to clearly signal which processes and skills the company needs to be excellent at » (Kaplan, 1996, p. 74)

In the implementation of a management control system, the strategic dashboard is designed with a view to communication and knowledge sharing within the company. It helps the manager and his team to formalize the objectives and translate the organization's strategic choices in a clear and coherent manner for everyone. It provides operational managers with the means to evaluate their performance using relevant financial and non-financial indicators.

(KAPLAN R. S., 1996, p. 85), pioneers in the field, present the BSC as a compass that guides and directs the company. Thus, they define it as being « a performance measurement system balanced between financial and non-financial indicators ; between short term and long term ; between intermediate indicators and outcome measures »

These indicators are identified on four axes (cited above), linked together by cause and effect relationships which define the strategy.—To ensure alignment between employee initiatives and those of the company, new processes are identified to meet the expectations of customers and shareholders.

Balanced scorecard and strategic intelligence : Performance levers for the algerian company. Case of the Sonatrach Group

These indicators are developed at the upper level of the hierarchical pyramid, then broken down to lower levels using a “Top Down” approach. In addition, the principle of the balanced scorecard is more focused on the future than on the past and its objective is to align management at the operational level with the organization's strategy.

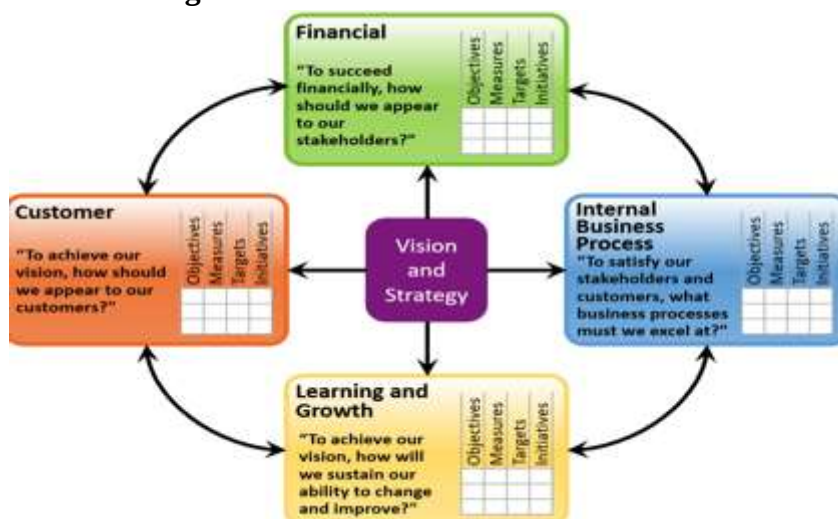
2.3. Balanced scorecard (BSC) structure

(Duvernoy, 2023) explains that this tool analyzes performance according to a series of indicators, with the aim of evaluating and steering the company's overall strategy. The (BSC) aims to balance traditional financial performance measures with non-financial ones, linked to customers, internal processes, and the development of employee skills and knowledge

Indeed, the balanced scorecard was born from the questioning of performance evaluation systems focused solely on monitoring past financial results. It is a combination of financial and operational measures classified according to four axes : financial results, customer satisfaction, internal processes and organizational learning.

The figure below shows the four dimensions of the balanced scorecard table.

Fig.1. Architecture of the Balanced Scorecard



Source : kaplan. R. S & d. P. Norton, 1996, P. 21

These four axes focus the attention of organizations and companies on the following issues :

-**The financial axis** revolves around performance : How should companies be perceived by their shareholders in order to succeed financially? What does the company offer shareholders ?

In this area, the company tries to measure the effectiveness and efficiency of its actions, and thus constantly updates the interactions between financial results and the realization of its strategy.

Financial projection is one of the essential pillars of the performance of the balanced scorecard. Financial performance is a fundamental criterion for analyzing a company's

current activities. In general, the objectives of a financial projection are to improve product profitability, return on equity, net cash flow, net income and other similar indicators. These elements are the main levers of efficiency in this approach.

- **The focus on customer satisfaction** raises the following questions : How should companies be perceived by their customers in order to align with their vision ?

What does the company offer its customers ?

In this axis, the company attempts to measure a qualitative and subjective phenomenon.

This projection enables managers to strengthen their marketing and sales strategy, which should lead to improved financial performance in the future.

-**The focus on internal performance** issues seeks to provide answers to the following questions : What processes must companies excel in to satisfy their shareholders and customers ? In this axis, the company is expected to meet the demands of shareholders in terms of profitability on the one hand, and customer satisfaction and loyalty on the other.

-**The organizational learning axis** addresses the following questions : How can we manage change and preserve the company's capacity for adaptation and continuous improvement ?

When it comes to training and development, the main levers of effectiveness include employee satisfaction and loyalty, their skills and qualifications, their ability to quickly access the information they need to make managerial decisions, the generation of initiatives, and the performance of the information system.

These axes are interconnected by cause-and-effect relationships, structured around the company's vision and strategy. As (Gumb, 2003, p. 23) points out : « Each of these axes is directly influenced by the company's global strategy. Once defined, this strategy is translated into charters or watchwords. The indicators to be measured are then determined according to the strategic imperatives specific to each dimension. It's a multi-dimensional translation of corporate performance ».

These four axes enable any organization to link its actions to its strategy, while evaluating the evolution of performance variables, thanks to a global and balanced approach to its activities.

The author also points out that the Balanced Scorecard (BSC) « constitutes a dashboard that integrates both tangible gains and non-measurable elements, establishing a link between the organization's new capacities for qualitative evolution and its financial performance » (2003).

However, these pivots do not constitute a static and universal model.

The model does not precisely define the indicators to be used in each of the four axes, as these vary from company to company. Indeed, each organization selects its own indicators according to its objectives, its strategy and the specificities of its environment.

These axes are structured around the strategy that is essential to the effectiveness of the measurement system. They provide an integrated vision of the company's performance

Balanced scorecard and strategic intelligence : Performance levers for the algerian company. Case of the Sonatrach Group

indicators, adapted to an increasingly competitive context, where the notion of performance goes beyond financial results alone.

Ultimately, according to Ph. Iribane (2003), the main purpose of the Balanced Scorecard is to communicate strategy, focus attention on the achievement of key performances, and guide overall strategic decision-making.

Thus, by analyzing the contributions of Kaplan and Norton, three major phases have marked its evolution :

Phase 1 : BSC as a multidimensional performance measurement tool

Phase 2 : BSC as a tool for deploying and communicating strategy, with a view to aligning members with that strategy.

Phase 3 : BSC strategic management system is a multi-dimensional performance management system, which enables strategy to be designed, communicated and implemented.

These three phases integrate financial, non-financial, short- and long-term measures linked by cause-and-effect relationships, structured around four strategic axes : financial, customer, internal processes and organizational learning.

3. Strategic intelligence: a corporate performance tool

Strategic intelligence involves making a reliable diagnosis of a company's competitive environment and anticipating its evolution. It is a process of prospecting and detecting weak signals, designed to improve a company's ability to anticipate and react.

Also, (Drevon, 2021, p. 40) states that the purposes of BI are to support an organization's strategy and support decision making

(Lecas, 1994, p. 31) defines strategic intelligence as « an informational process through which the company proactively listens for weak signals in its environment, with the creative aim of identifying opportunities and reducing uncertainty ».

To better understand the stakes involved for companies, it is useful to review the evolution of this concept and its implications as a process.

In France, the concept first appeared in the late 80s. In 1988, the French Minister for Research and Higher Education set up a. The term was later considered too narrow. Variants of the term were born, as declensions of watch (economic, social, legal, chemical, political...) or broader terms such as information watch or strategic watch.

3.1. Strategic intelligence : A few definitions

(Lecas H. , 1997, p. 27) « a continuous collective process by which a group of individuals voluntarily identify and utilize anticipatory information concerning changes likely to occur in the company's external environment, with the aim of creating business opportunities and reducing risks and uncertainty, enabling timely and decisive action.».

The authors (Lecas H. &-L., 2005, p. 94) define the strategic intelligence as « an information process, organizational and human who connects the company- or the

organization – with external sources of information, by mobilizing sometimes – but not necessarily – technological resources ».

Authors (David. C & S. Gros, 2009)) consider that « strategic intelligence is a decision-making system that observes and analyzes the scientific, technical and technological environment, and its present and future economic impacts, in order to deduce development threats and opportunities. It is based essentially on information of a strategic nature or important decisions, which is why it is known as strategic intelligence »

These three definitions highlight a number of key elements in the concept of strategic intelligence :

- Firstly, all definitions emphasize the informational nature of this process. The permanent nature of this active search for information enables the company to stay updated on developments in its environment ;

- Emphasis is also placed on the nature of the information produced by monitoring, and the anticipatory and strategic nature of the information involved. Indeed, a company's performance and competitiveness will depend, to a large extent, on its ability to anticipate act based on scenarios built around these anticipations. Strategic intelligence seems to be the tool par excellence that provides the company with this relevant information, thanks to the identification of the weak signals that guarantee success ;

- Finally, in all the definitions that present this concept, the legal nature of the search for information is emphasized. This is a crucial aspect to consider when advocating for this approach.

As a micro-economic concept, intelligence has an anticipatory function,–function and also fulfills a broader and more sophisticated informational function. In its analytical role, it highlights potential impacts on the organization, which serves as the foundation for strategic decision-making.

3.2. Weak signals and corporate performance management :

The concept of « weak signals » was conceived in the 1970s by Igor Ansoff. According to this author, weak signals « are elements of perception of the environment, opportunities or threats, which must be detected in advance, referred to as monitoring, with the aim of participating in the elaboration of prospective choices with a view to establishing a strategy, and reducing uncertainty ». (Ansoff, 1975, p. 22)

It should be noted that one of the difficulties of monitoring is to target the listening and to know which signals to pick up. That's why, before starting any research and information-gathering activity, it's important for the company to clearly define its priorities and objectives. This will define the scope of the intervention and facilitate the process.

The international tensions of the early 1970s (oil crises, the Yom Kippur war) and their profound impact on economic dynamics helped to call into question conventional approaches to identifying external threats, and led some researchers to focus on weak signals. Thus, as the author (H. Ansoff, 1975) points out, his approach focuses on the perception of these weak

signals, which, he believes, enable organizations to anticipate unexpected environmental changes more quickly (Moscato, 2010, p. 19).

« Weak signals are incomplete, fragmentary, anticipatory, uncertain and ambiguous information about events or developments that have not necessarily begun and may have significant consequences for the company (Rouibah et al. 1997). Weak signals can be identified as the announcement of threats or opportunities. Such information is, however, necessary to inform strategic decisions (Ansoff and McDonnell 1990, Mintzberg and Waters 1985), and its management is a prerequisite for sustainable corporate success (Dou 1995 ; and Lesca 1995). Although strategic intelligence has become a preoccupation of most companies, mastering weak signals depends on the ability and capacity to deal with them (Lesca and Caron 1995, Rouibah 1998, Lesca and Blanco 1998, Caron 1999) » (Rouibah, A methodology for the management of weak strategic intelligence signals, 2001, p. 2)

« In just a few decades, the weak signal has become the grail of watchers, and the onslaught of Big data has given a new lease of life to a theoretical and practical illusion that gives pride of place to cognitive biases. Its replacement is therefore more necessary than ever for strategic information professionals to gain in efficiency and strengthen their institutional positions »*.

The added value of these weak signals lies not in their detection, but rather in the actions they trigger. These signals are above all deductive extrapolations. Indeed, over and above the ability and skill of the company or watchdog to identify a possible opportunity in a weak signal, the real opportunity will be to identify a possible action linked to this signal ; an action that would not have been foreseen or implemented by another company highlighting the need to equip it with appropriate tools capable of capturing this information and transforming it into action, such as the dashboard for example.

In this respect, it should be noted that the information system, by virtue of its functions, is an indispensable tool for the strategic intelligence system. The strategic intelligence process needs to be supported by a flawless, high-performance system, otherwise what's the point of identifying weak signals if the company has neither the capacity nor the means to absorb or process them ?

So information systems and business intelligence form an effective partnership when they work in synergy !

4. Strategic intelligence and balanced scorecard: what is synergy?

This section does not delve into the various definitions. What interests us in this work is to highlight a process rooted in a collaborative approach at the company level. This collaboration, in addition to involving several stakeholders within the company, also calls on several tools and instruments deployed within it, all of which are equally important. These include the strategic dashboard.

We have already discussed the role and importance of the strategic dashboard in corporate performance, as well as the role of the information system as a strategic support and companion to monitoring and the dashboard.

We have already mentioned the anticipatory power of intelligence, which increases a company's chances of improving performance and gaining a competitive edge. The following section will attempt to demonstrate the possible bridges between the two instruments, highlighting the contribution of intelligence to each of the (BSC) axes. Corporate intelligence involves gathering strategic information to anticipate developments and innovations. The company's strategy therefore remains closely linked to the results and information gathered by the intelligence function.

In addition, and in order to reconcile strategic and operational levels and reconcile strategy and company management, it is important that indicators, whatever they may be, be broken down from strategic objectives down to the lowest level of the company. To this end, monitoring should serve as a source for the development of company indicators, particularly those for the (BSC), which will in turn serve as a tool for measuring the company's various actions.

It is important to reflect on how to adapt the intelligence system to the management tools to be implemented. As corporate performance tools, intelligence and the balanced scorecard share the ability to deliver relevant, strategic information to decision-making centers with relevant, strategic information with a view to improving performance. As their objectives converge towards the same focus, these two tools find themselves partners in their mission of seeking competitive advantage ; hence this correlation.

Among the various definitions of the strategic dashboard, we note the fact that it constitutes a summary document at the service of corporate performance, bringing together several indicators of heterogeneous natures. These indicators can originate from diverse sources, both internal and external. Monitoring is therefore a source of support.

Accessing the information required to anticipate situations swiftly and accurately is an essential element, and one that is often highlighted as a limitation of the dashboard. Indeed, the latter has often been criticized for anticipation providing ex-post performance metrics but lacking in anticipatory capabilities. Responding to this concern for anticipation means recognizing the importance of having a company-level tool that defines future-oriented indicators, which can then be translated into indicators for the actions to be implemented. In other words, the use of a monitoring system, a system designed for anticipation and proactive action, is essential to the successful definition of dashboard indicators.

4.1. Balanced scorecard indicators and business intelligence :

The balanced scorecard highlights the inadequacy of financial indicators in guiding company activities (Norton & Kaplan 1992-1996). It presents four dimensions of performance. Each dimension is based on the company's vision and strategy. The performance indicators for each dimension must be based on the strategy and linked to each

Balanced scorecard and strategic intelligence : Performance levers for the algerian company. Case of the Sonatrach Group

other to enable the organization to achieve financial performance and create shareholder value.

By reviewing the various axes of the strategic dashboard, we will attempt to explain the link between it and strategic intelligence.

The fundamental assumption of the BSC is that it has a “StrategyMaps”, also known as a strategic roadmap, which is a “cause and effect” type diagram presenting the relationships between strategic objectives from four perspectives : financial, customer, process, learning and growth. and which includes the following indicators :

4.1.1. Financial indicators :

These are particularly important management tools for company directors. They provide a clear understanding of the company's performance, enabling decisions to be made under the best possible conditions, and positioning the business project for success. They reflect the shareholders' opinion of the company and measure the level and evolution of its financial performance.

The financial side of the dashboard is also concerned with highlighting the strategic elements that would promote the company's growth, as well as those that would justify any diversification. In other words, competitive intelligence is useful, if not indispensable, as it will provide the company with the necessary information on the strategic behavior of its various competitors (direct and indirect, actual and potential) in the company's current strategic fields of activity, and those it intends to integrate into its portfolio of strategic activities in the future. External diagnostics will enable us to identify all these strategic elements ; a diagnosis that cannot be made without strategic intelligence. This approach offers the company a clearer vision of potential diversification or growth strategies.

At this level, monitoring also takes the form of financial and competitive monitoring. Financial intelligence involves monitoring financial news to detect movements in :

- Financial, currency (interest and exchange rates) and commodity markets that could affect the company ;
- The company's securities (if listed on any markets) ;
- Securities of similar or competing companies, or companies in which the company has an interest, or with which it collaborates (customers and suppliers).

It also involves keeping abreast of the latest tax developments and government financial aid, etc. These are all elements to be included in the strategic dashboard indicators.

4.1.2- Market-oriented indicators :

These indicators assess the factors driving current or future customer satisfaction. Among these indicators we have the customer loyalty rate, the percentage of sales generated by new customers, average sales per customer, the growth rate of sales per customer, the number of customer incidents, the life time value of a customer, the Customer Perceived Satisfaction Index, the market segment share, the customer concentration rate (sales per quartile) and the measurement of the effectiveness of promotional actions...ects.

These indicators are the basis of our commercial and competitive intelligence approaches.

Business intelligence is essentially concerned with two elements : The market (or customer) and suppliers. It differs from marketing research in that it involves long-term monitoring of changes in customer needs.

The information obtained through the sales intelligence process is often cross-referenced with that obtained through competitive intelligence, to improve loyalty techniques, for example.

Today, customer loyalty techniques are becoming increasingly sophisticated, requiring the monitoring and analysis of complaints, which can open up new avenues of research for the business intelligence department. The latter often works in close collaboration with the marketing department.

To this end, each component of strategic intelligence contributes information that supports these indicators. Examples include technological, competitive, commercial and societal intelligence.... These different types of monitoring also help to provide a clearer picture of the competitive situation and customer/supplier behavior in each strategic business area, as well as any threats and power relations between the company and its partners. This base of strategic information is integrated into the dashboard indicators, so as to be better prepared to « defend » or « attack », depending on the company's objectives, and the positions, capacities and potential of each of the companies in question.

4.1.3. Internal indicators

Relating to the effectiveness and efficiency of key processes ; this involves questioning how the management of operations and processes can contribute to providing the company with a competitive advantage. At first glance, these internal indicators may appear unrelated to the external, anticipatory perspective of business intelligence. However, this is not the case. Effectiveness at organizational level is measured in relation to set objectives, which are underpinned by a diagnosis that, in turn, is based on the actions of the intelligence process. Efficiency, on the other hand, concerns the optimization or use of resources within the framework of the strategies defined for these objectives.

These resources gain significance only when integrated into an external diagnosis. In other words, if the internal diagnosis makes it possible to identify the internal potential of the company, the evaluation and assessment of these resources can only be done when the necessary resources are defined in terms of key factors of success (external diagnosis and monitoring) and, on the other hand, the resources of competitors which will determine the nature of the company's resources (strengths or weaknesses). This evaluation also requires external diagnosis and strategic monitoring.

4.1.4. Indicators of continuous progress :

These indicators reflect the level of innovation within the organization. This « organizational learning » axis essentially concerns the way in which human resources and knowledge are managed in order to achieve the strategic objectives defined previously.

Balanced scorecard and strategic intelligence : Performance levers for the algerian company. Case of the Sonatrach Group

Organizational learning is the collective process of creating, developing, and adapting tacit and explicit knowledge within the company.

These progress indicators are varied (quantitative, qualitative, objective, subjective, etc.), and they must serve as communication mechanisms, transmission between the vision at the top and the execution at the base. Rather than merely reflecting ex-post performance, these indicators should actively contribute to and facilitate organizational learning. The results of this progress evaluation only take on their full meaning when they are compared to the results of competitors or the external environment, results obtained thanks to monitoring.

The creation, development, modification of knowledge in the company aims to obtain a competitive advantage. All these information management actions should be oriented towards an objective of innovation and differentiation. Thus, to better frame this information and this knowledge, the company must be informed of the strategies of competitors as well as the opportunities for innovation presented by the environment, a consideration which requires the use of strategic monitoring, in all its dimensions.

The development of a strategic monitoring unit within the management control or strategic management department is highly relevant. Likewise, the implementation of benchmarking procedures is likely to be useful. This enables the company to draw insights from the best practices of efficient competitors to enhance its own procedures. Here again, monitoring is the tool par excellence which makes it possible to identify all the information necessary for this approach.

It should be noted that the use of key performance indicator systems in companies will expand further with the availability of advanced business intelligence tools. We will trace, in the following figure, the different axes presented by Kaplan and Norton, integrating our deductions on the role of monitoring in each of these axes.

Table 1. Interdependence of strategic intelligence and performance indicators according to the axes of the BSC

<i>Strategic monitoring</i>	<i>The Axes of BSC</i>	<i>Performance attributes interpreted into indicators</i>	<i>Examples of indicators</i>
<i>Financial and competitive monitoring</i>	<u>Financial axis</u> promoting actions that enable - To position the business project on the path to success ; - Define the growth and diversification strategy.	- Growth in turnover ; - improved productivity and reduced costs and risk ; - Use of assets ; - Measurement of project profitability.	- Growth and turnover of the company - Sales growth ; - Unit costs ; - Net profit rate ; - Company cash flow level ; - Return on invested capital.
<i>Technological and competitive value chain commercial monitoring</i>	<u>Customer focus turned towards the market highlights</u> : Measuring the effectiveness of commercial actions ; Negotiating powers with customers and suppliers.	- Customer satisfaction ; - Acquisition and retention of new customers ; - Profitability by segment ; - Market share ; - Respect of delivery deadlines (agreed).	- Degree of customer satisfaction ; - Price index ; - rate of sales made to existing customers ; - Rate of sales made after new customers ; - Product return rate.
<i>Competitive monitoring External diagnosis</i>	<u>The internal processes axis</u> focus on - Effectiveness and efficiency ; -Strengths/weaknesses of the company.	Productivity, responsiveness, quality, cost of processes : Innovation, Production and after-sales service.	- Percentage of sales made with new products ; - Reaction time to service calls ; - Current costs.
<i>Competitive and technological monitoring Benchmarking</i>	<u>The Organizational Learning Axis continuous progress</u> based on : -Innovation ; Organizational learning and the development of knowledge that provides competitive advantages.	- The potential of employees ; - Reorientation of skills ; - Information systems skills ; - Alignment of the company's objectives with those of the individual and collectives.	- Employee satisfaction rate ; - Number of employee suggestions ; - Measure innovation capacity ; - the amount invested in training ; - Availability of information ; -Mobility rate (staff turnover rate) ; - Turnover rate of new employees ; - Average hiring time ; -Absenteeism rate ; Absenteeism rate by manager or department.

Source : Inspire by H. Zian, 20013, P. 56 developed by the authors

Monitoring, through one of its information collection functions, provides the strategic dashboard with relevant information for the construction of congruent indicators. These indicators, when well defined, facilitate the initiation of actions to secure a competitive advantage.

The balanced scorecard axes offer managers comprehensive visibility, enabling them to translate the company's strategic objectives into a coherent set of performance indicators. The (BSC) puts the company's strategy at the center of reflection, it helps to clarify it and, based on the defined axes.

These axes result from an extensive process of reflection, starting at the top of the company with strategic analysis and objective definition, primarily informed by monitoring actions, until they are translated into indicators and subsequently into strategies and actions. The relevance of the indicators defined by the (BSC) will inevitably depend on the quality of the monitoring process.

Also, we are aware that the prerequisite for any information collection and research action is the identification of information needs. The definition of these needs is the result of an environmental analysis which allows the company to be positioned in its global and

Balanced scorecard and strategic intelligence : Performance levers for the algerian company. Case of the Sonatrach Group

competitive environment. An analysis that cannot be complete without comparing the company's means and capabilities. In other words, external analysis only takes on its full meaning when combined with internal analysis. Conducted jointly, these analyses offer a comprehensive view of the company within its environment, enabling the definition of SMART objectives (Specific, Measurable, Ambitious, Realistic, Temporal) for future actions, which will be able to determine the competitive advantage of the company. Monitoring must therefore, to unmoor, take the required information from the company's internal analysis and the results of the actions carried out so far.

The (BSC), by proposing performance indicators, makes it possible to evaluate the effectiveness and efficiency of actions. It provides the company with information on future information needs that would correct or improve previous actions. From there, the results of this measurement and this evaluation constitute the starting point for a new analysis and a new strategic monitoring.

In conclusion, our initial hypothesis—that monitoring impacts the identification of (BSC) performance indicators—is confirmed, but remains incomplete, as the (BSC), in turn, influences the monitoring process by initiating information searches based on performance evaluation results.

In other words, the relationship between these two tools is interdependent rather than hierarchical. Indeed, the strategic dashboard is an instrument which is powered by information from monitoring which serves as a basis for defining its performance indicators. They will therefore be decisive in the choice of actions to be implemented but it also constitutes a very insightful source of information for this same monitoring unit. Consequently, information searches will be oriented according to the results and information provided by the (BSC)

We can, therefore, consider both of these two tools as essential for improving performance and achieving a competitive advantage. Furthermore, they are considered complementary to each other.

5. Synergy balanced scorecard and strategic intelligence in the service of competitiveness within the sonatrach group

Sonatrach is the flagship company in Algeria. Considered as the main contributor to the country's GDP, focusing on the tools that would underpin the analysis of its performance is of cardinal importance.

5.1. Presentation of sonatrach :

Created on december 31, 1963, Sonatrach is an Algerian oil and gas company acronym for National Company for Research, Production, Transport, Transformation, and Marketing of Hydrocarbons.. Sonatrach is a key player in the oil industry, often referred to as the 'African major (Sonatrach 2023, s.d.), deriving its strength from being a fully integrated group operating across the entire hydrocarbon value chain.

It is especially considered as an active player in investments relating to the exploration, discovery, drilling and production of oil and gas as well as the development of all related activities both at the national and international levels. During the 2022 financial year, the company made more than USD 5.5 billion in investments (Sonatrach activity report, 2022). At the national level, Sonatrach is the primary industrial investor, supporting local industries through partnerships with national companies, SMEs, technology centers, and its subsidiaries that manufacture spare parts for its infrastructure. It has thus ratified 1,800 contracts with companies under Algerian law, 84% of which represent USD 3.4 billion (Sonatrach activity report, 2022).

This highlights its role as a symbol of national sovereignty, meeting the country's present and future hydrocarbon needs while contributing to national development through exports. In addition, Sonatrach is committed to social and cultural development and is involved in environmental protection by encouraging the development of local content with a view to opening up investment opportunities to support the rate of national integration and contribute to the reduction of foreign currency expenditure.

At the international level, Sonatrach is also active in the production of electricity, the marketing of oil, gas and their derivatives, petrochemicals and refining. In addition to exploration and production, it also engages in maritime or pipeline transportation of hydrocarbons.

As part of its new strategy focused on operational performance, Sonatrach affirms its desire to accelerate the development of LNG production capacities and the strengthening of the Algerian presence on the international gas market. This strategy is based around the implementation of large, structuring, high value-added projects that will have a significant impact on the company's results.

5.2- Monitoring practices and use of balanced scorecard within sonatrach :

Sonatrach leverages monitoring capabilities to enhance its performance across all activities. Indeed, the strategy of vertical diversification through upstream or downstream integration offers the company a plethora of advantages which can be linked to both costs and quality.

After having exposed (In supra P.1 3) some of the potential interactions between strategic monitoring, the dashboard and the information system as well as their contribution in obtaining a competitive advantage, we will see in which This reasoning applies to the case of an Algerian company.

Before presenting our empirical results, let us first return to certain conclusions relating to monitoring practices and the use of the dashboard in companies in general and the Algerian company in particular. This summary reminder is structured around four essential points, namely :

1) The effectiveness and necessity of implementing a strategic monitoring system as a performance lever or tool for obtaining a competitive advantage is no longer in doubt. Both theoretical and empirical work, in this sense, agree that the performance of the company is

Balanced scorecard and strategic intelligence : Performance levers for the algerian company. Case of the Sonatrach Group

conditioned by its ability to adapt to the environment on the one hand, and its ability to be proactive and therefore to anticipate on the other hand.

2) Whatever the context of analysis, in this case in Algeria, this anticipation skill will depend on the effectiveness of the strategic monitoring system implemented by the company, a skill which cannot be realized without the translation of this information into indicators capable of serving the different decision-making centers. This is how the strong link between monitoring and the dashboard appears, provided that they are supported by a relevant information system which will allow their communication to be optimized.

Also, if the monitoring practice has become a norm in companies in developed and industrialized countries, it remains problematic in companies in developing countries, particularly Algerian companies. Indeed, despite the goodwill displayed by our leaders regarding the implementation of this practice ; and notwithstanding the sustained interest in this tool, the reality on the ground is quite different.

The implementation and practice of strategic monitoring remain limited and fall short of the demands and challenges posed by the environment. Cultural, managerial, environmental, and regulatory factors are among the primary challenges hindering the adoption of this practice in Algerian companies.

As the goal of this article is to link the balanced scorecard and strategic monitoring, it is essential to study a company that utilizes both tools. This is what partly justifies the choice of the Sonatrach group as a field of investigation. Using a series of questionnaires relating to management control, strategic monitoring, the dashboard, and company performance, we reached conclusions that we will present below.

Also, and before reaching these conclusions, we consider it interesting and useful to briefly present the general content of the questionnaires. Using a series of questionnaires relating to management control, strategic monitoring, the dashboard, and company performance, we reached conclusions that we will present below.

The questionnaire is inspired by the Test 1000 by Bernard Besson, member of the Academy of Economic Intelligence and the Test 300. It is presented in the form of several sections. Each section corresponds to a field of study of our problem. We have included, in addition to the sections relating to monitoring and the dashboard, sections which address the issue of management control in general as well as a whole section relating to the impact of all of these variables on the performance and company strategy.

Each of the questions contained in each section is rated from 0 to 5 (Principle of the LIKERT scale[†]). The final score obtained is an indicator of the existence and practice of each of these tools on the one hand, and of their degree of interdependence and contribution to the company's strategy on the other hand.

Here are our conclusions :

[†] Also called the attitude scale. Allows you to quantify qualitative information to possibly arrive at a score

5- RESULTS OF THE SURVEY :

Beyond the company's organizational chart, which clearly includes a monitoring department, interviews with managers confirmed the existence and use of strategic monitoring practices and the balanced scorecard

The approach we have undertaken goes in the direction of confirming the existence of these practices, their interdependence and their contribution to the strategy and performance of the company. The scores obtained exceed 50% of the total score of all sections attesting to the existence and practice of each of these variables by the company.

5.1. About strategic intelligence

We raised several questions related to strategic monitoring and its different dimensions. Analysis of the questionnaires reveals that monitoring activity is well established and actively practiced within this company.

The diversity of monitoring activities enables the organization to stay continuously informed about its environment. Its strategic role, both at the national and international level, requires the integration of monitoring as an essential support tool. This tool makes it possible to continuously monitor developments in stakeholders and external dynamics likely to influence its decisions and strategic orientations.

Strategic intelligence serves as a critical tool for anticipating changes, developing proactive strategies, and strengthening the company's competitive market position.

The monitoring favored by the company is : competitive monitoring, normative monitoring, legal and regulatory monitoring, technological and marketing monitoring. Alongside these monitoring which display the highest scores, other types of monitoring are also carried out although with relatively low scores, in this case, e-reputation monitoring, societal monitoring and benchmarking.

5.2. About the balanced scorecard and its synergy with strategic intelligence

The detailed analysis of each of these sections shows that the information collected by the strategic intelligence department at the Sonatrach company level feeds the different sections of the strategic dashboard.

The balanced scorecard, populated and updated through monitoring, serves as a benchmark for the company's various decision-making centers.

The dashboard set up within Sonatrach offers different indicators (financial, commercial, processes, learning) which are intended to inform decision-making centers. This information collected thanks to an efficient information system is made up of the different monitoring units which search for and collect information drawn from different sources, namely : daily and weekly press, professional databases, consulting offices, clients, suppliers, employees, etc. as well as events in which the company takes part, whether it organizes itself or not.

6. CONCLUSION :

The emergence of new technologies has significantly transformed the way organizations operate, making strategic intelligence a crucial tool for informed and proactive decision-making.

By facilitating access to external information, strategic intelligence enhances the effectiveness of decision-making processes and strengthens competitive advantages. The interaction between strategic intelligence and the strategic dashboard plays a key role in guiding company strategy and fostering its evolution into a learning organization. However, challenges such as the digital divide, information access barriers, and disruptions in decision-making processes can hinder this progress.

These disruptions are often caused by weaknesses in the information system or knowledge management cycle. Therefore, integrating a strategic intelligence approach requires careful planning and the use of complementary tools that align with the company's objectives.

The empirical analysis conducted within Sonatrach highlights the strong interdependence between strategic intelligence and the dashboard, demonstrating their significant impact on decision-making and overall company performance.

. Recommendations

From this research, we learned some lessons :

- Promote a culture of strategic intelligence within organizations to enhance decision-making and long-term competitiveness.
- Optimize the information system to ensure fast and efficient access to strategic data.
- Strengthen management training in analyzing and utilizing insights from strategic monitoring and dashboards.
- Bridge the digital divide by implementing accessible and user-friendly tools for employees at all levels.
- Enhance the integration between strategic intelligence and the dashboard to improve decision-making efficiency and responsiveness.
- Value human capital by actively involving employees in data collection and strategic analysis.
- Implement continuous assessment and monitoring of strategic intelligence tools to ensure their effectiveness and alignment with business goals.

Bibliography List :

1. Books :

- Fernandez, A. (2005). L'essentiel du tableau de bord. Paris : Editions d'organisation
- Moscato, G. (2010). Economic intelligence and financial modeling : implementation of a tool for business projects,. Paris-Est University,.
- Leroy. (2001). The dashboard serving the company. Paris : Organisation .
- Morin, P. (2021). Le tableau de bord. Paris : Ellipses.

2. Journal article :

- Ansoff, H. I. (1975, 02 18). Managing strategic surprise by response to weak signals. California management review.
- Drevon, E. D. (2021). De la prise de décision à la stratégie des organisations : les Finalités de la veille orientée vers la stratégie, Revue internationale d'intelligence économique.
- Gumb, P. (2003, March 20 and 21,). A comparative history of management control and business intelligence or the eternal return of the strategic myth. International conference organized by CREFIGE.
- kaplan, R. S. (1996). Using the Balanced Scorecard as a Strategic Management System. . Harvard Business Review.
- Lecas, H. &-L. (2005, Décembre). La veille vue comme un système cybernétique. Finance Contrôle Stratégie – Volume 8, n° 4.
- Lecas, H. (1994). Strategic intelligence for strategic management. Economy and society, management sciences series,
- Lecas, H. (1997,). Strategic intelligence, Concepts and implementation approach in the company. Ministry of National Education, Research and Technology, DISTNB and ADBS.
- Rouibah, K. (2001). A methodology for the management of weak strategic intelligence signals. the journal of Gestion 2000, volume 18- Number 6-, 2.

3. Internet websites :

- Duvernoy, M. (2023, Juillet 7) <https://www.theassistant.com/fr>.
- http://www.crefige.dauphine.fr/recherche/histo_compta.htm. (2003, March 20 and 21).
- David. C & S. Gros, 2. (2009, 12 03) http://www.agentintelligent.com/veille/veille_strategique.html#Définition

4. Rapport

- Sonatrach activity report, 2022.
- Sonatrach activity report, 2023