The Balanced Scorecard as a tool for enhancing the concept of corporate governance – A case study of *Ain El Kebira* Cement Company

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Abstract

This study aims to highlight the role of the Balanced Scorecard in enhancing corporate governance, using Ain El Kebira Cement Company as a case study from 2017 to 2022. The study attempted to explore how the Balanced scorecard, as a strategic management tool, can contribute to monitoring and guiding administrative activities, thereby strengthening the principles of corporate governance by emphasizing the periodic assessment of performance across five dimensions: financial, customer, internal operations, learning and growth, and social and environmental.

The study concluded that Ain El Kebira Cement Company does not have a formal corporate governance system. Instead, it implements governance practices through its independent board of directors, the adoption of independent internal and external audits, and the adoption of ISO systems (e.g., ISO 9001, ISO 14001, and ISO 45001). Furthermore, the study concluded that the adoption of the balanced scorecard by the company's administration enhances the principles of corporate governance by establishing disclosure, transparency, and accountability, supporting the process of making operational and strategic decisions, achieving a balance between the objectives of stakeholders, and protecting the rights of shareholders.

Keywords: Overall performance, Balanced scorecard, Corporate governance.

JEL classification: L10, H11, G30.

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1. Introduction

As of the rapid changes witnessed by the entrepreneurial environment, the circle of competition has narrowed, and companies seeking to gain a sustainable competitive advantage that enables them to build wealth that allows them to survive and grow are obliged to adopt comprehensive regulatory frameworks such as corporate governance, and modern strategic management methods such as the balanced scorecard to reinforce the transparency, accountability, and efficiency in decision-making, which enhances the confidence of stakeholders.

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The *Ain El Kebira Cement Company « SCAEK »* which moved from a monopolistic competition market to a perfectly competitive market as a result of the saturation of the Algerian market with cement and the paralysis of the construction and public works sector, is considered an example of companies that must adopt an integrated system to govern their managerial operations and control the relationship between the General Assembly (shareholders), the board of directors, the executive directors, and the rest of stakeholders, in addition to adopting a balanced scorecard that supports the achievement of governance by focusing on the causes of building multidimensional wealth that allow the company to balance between achieving profits in the short term and building a sustainable competitive advantage in the long term.

This research aims to investigate the implementation of the balanced scorecard at Ain El Kebira Cement Company to enhance its corporate governance. The study represents empirical research focused on designing a balanced scorecard for the cement company and using it to guide and monitor the administrative operations, thereby improving the governance of its bodies and structures and ensuring high levels of transparency and accountabilityand differences in terms of purpose, Sample study, variables, method and tools used, then the conclusions reached.

1.1 Literatures Review

A study by Abigail & Clive (2012) addressed the balanced scorecard as a strategic tool widely used in several companies within the public, private, and third sectors. They aimed to show how Action Research has been used within a corporate setting to develop a Balanced Scorecard to aid corporate governance. The study found that the Balanced Scorecard has been shown as an effective management tool to aid corporate governance, with Action Research demonstrated to be a practical and valuable technique in developing this output.Grégory (2015) studied the role of the balanced scorecard, using non-financial indicators, as a tool of strategic management accounting (SMA) in enhancing corporate governance. His study revealed that French managers associate non-financial indicators with strategic objectives, and they believe that there is no direct link between the use of non-financial metrics and performance.

Moses & Jen (2024) conducted research investigating the role of the balanced scorecard in enhancing corporate governance and transparency in Palestinian banks. Their research indicates that the balanced scorecard has significantly strengthened corporate governance and transparency in Palestinian banks. In other words, it facilitated a more structured and objective approach to governance, enabling banks to better align their strategic goals with regulatory requirements and stakeholder expectations. Kizhekepat & Srijayan (2011) emphasized the significant role played by the balanced scorecard within the company’s strategy, as it provides the board of directors with a comprehensive picture of the company’s performance and a better understanding of it, which leads to strengthening governance within the company.

Donald & Sunday (2021), using a longitudinal research design, have concluded in their study that board size and board independence have a significant influence on corporate performance using a balanced scorecard, while board gender diversity and audit committee size have no significant impact.

Through our presentation of the literature review, we observed that the prior researches align with the objective of our study by focusing on the relationship between a company's governance and the balanced scorecard, which is recognized as a strategic management tool that helps the board of directors in controlling and directing company's overall performance, ensuring wealth building for shareholders. However, what distinct our study from the previous studies is our research method, which represents designing a balanced scorecard alongside the directors of the company under study in an attempt to enhance companies' governance principles by providing a basis for transparent performance information on various strategic issues. That requires different management levels to comply with the internal laws and regulations and focus on building wealth for the company's owners (shareholders) by making decisions that serve their interests. Our study provides a comprehensive database that helps measure deviations and make sound and fair decisions to balance return and risk for various stakeholders. It also prepares detailed and transparent reports that illustrate the progress made in achieving strategic objectives, ensuring effective oversight and guidance of executive management by the board of directors.

1.2 The concept of balanced scorecard

Based on research published by Nolan and Norton in 1990, which examined performance measurement in companies whose intangible assets played a pivotal role in value creation, they introduced the Balanced Scorecard as a system that measures a company's performance by transforming its strategic objectives into financial and non-financial metrics grouped into four dimensions (Kaplan, 2010, p. 3).According to (Paul , 2014, p. 7), the Balanced Scorecard is a system designed to help companies effectively implement their strategies across four dimensions: financial, customer, internal process, and learning and growth. Furthermore, the Balanced Scorecard helps executives identify and achieve a company's key strategic objectives by integrating all four dimensions when measuring overall company performance (Chuck, Rick, & Peter, 2007, p. 10). It also helps company executives shift from the theoretical side of corporate strategy into something practical (Mohan , 2014, p. 14).

Through the previous definitions, researchers define the balanced scorecard as a tool that helps in managing the company's strategy by translating its vision and strategy into a set of financial and non-financial dimensions using different measurement methods, which leads to a better understanding of the company's overall performance and ultimately to serving the interests of owners and maximizing their wealth, as presents in the figure (01) as follow:

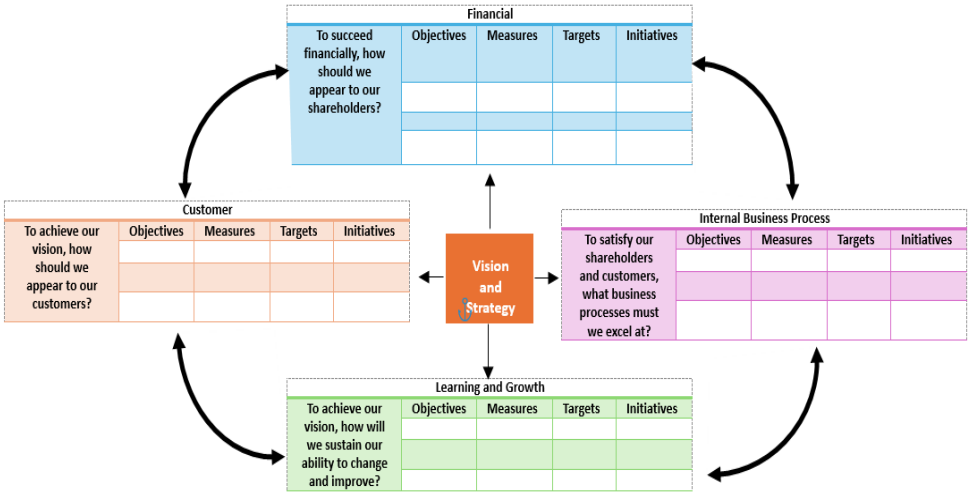

Figure 1. The Balanced Scorecards

Source: (Paul , 2005, p. 14)

1.3 The concept of corporate governance

Until 1980, companies' ownership and management belonged to the shareholders, but after the appearance of large companies during the Industrial Revolution, there became an obvious need to separate ownership from management. The research of Berle and Means in 1932 contributed to highlighting the issue of separating ownership from management and the accompanying difference in interest between managers and owners who face a decrease in their ability to control and make decisions due to the dispersion of ownership, which lost them the ability to exercise strong authority to supervise management, which now enjoys incremental freedom in using the company's resources compared to those companies in which the manager is the owner (Harold , 1983, p. 375). This study was the ground for the agency theory that emerged in 1976 by Jensen and Meckling, which states that the distinction between management and ownership creates what is known as an agency relationship between managers and shareholders. The agency relationship is a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf, which involves delegating some decision-making authority to the agent (Michael & William , 1976, p. 5).

Corporate governance is defined as the system by which a company is directed and controlled (Cabane, 2018, p. 43).The Institute of Internal Auditors defined corporate governance as the process of dealing with the procedures used by representatives of the company's stakeholders to provide oversight of the risks and control processes managed by management, which enables the company's risks to be monitored and ensures that the controls mitigate risks sufficiently to ensure the achievement of the desired objectives and the preservation of its value (Hermanson & Rittenberg, 2003, p. 27).

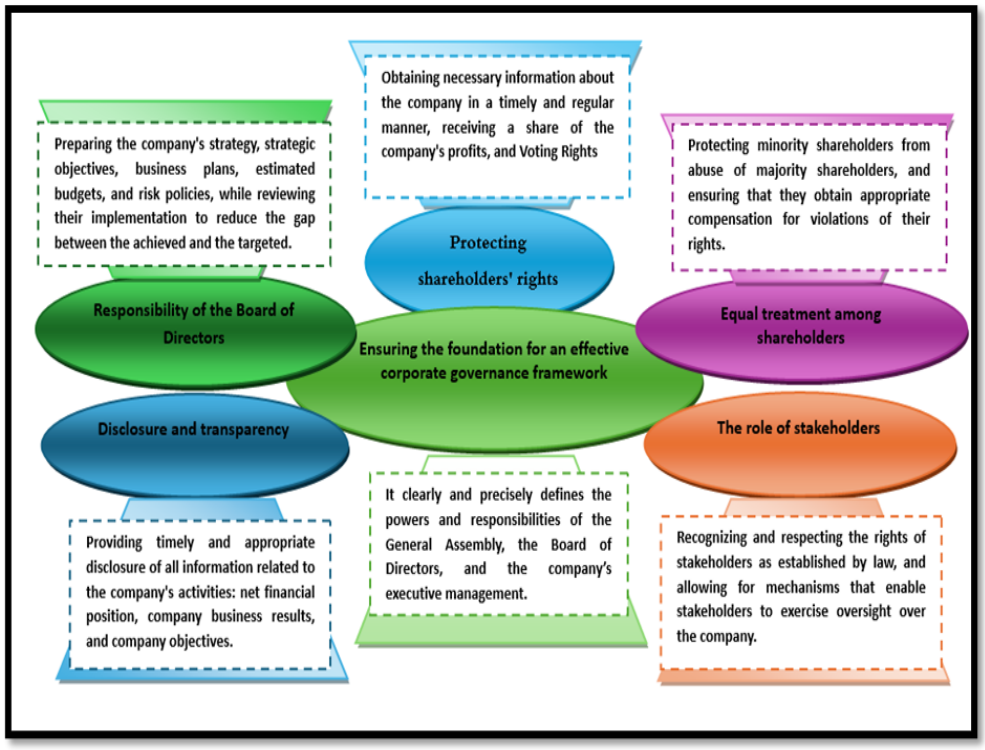

Figure 2. The principles of corporate governance
Source: (OECD, 1999, pp. 15-21)

1.4 The contributing of the balanced scorecard on achieving corporate governance

Considering that the balanced scorecard is a system for measuring and evaluating the overall performance of companies to reduce non-value-adding practices across their value chain, it thus guides and monitors the behavior of strategic and operational management, which makes it contribute directly to the governance of companies, which reduces cases of fraud and irresponsible practices carried out by incompetent managers and displays its results to internal and external stakeholders such as shareholders, clients and government, banks, etc. The following table illustrates the contribution of the balanced scorecard in activating corporate governance.

The contribution of the balanced scorecard in activating corporate governance

Table 1

The Principles of Corporate Governance issued by the Organization for Economic Co-operation and Development	The Contribution of the Balanced Scorecard
❖ **Enhancing market efficiency and transparency, upholding the rule of law, anddefining the responsibilities and authorities of the regulatory, supervisory, and executive bodies.**	- Providing transparent performance data on all strategic matters, used for external reporting or third-party auditing (external audit), to demonstrate compliance with laws and regulations and to implement the necessary control procedures.
❖ **Ensuring the rights of stakeholders**	- The Balanced Scorecard's focus on answering the question: 'To succeed financially, how should we appear to our shareholders?' directs attention toward creating shareholder wealth by striving to achieve good and excellent performance levels across the customer perspective, internal processes perspective, and the learning and growth perspective (the drivers of value creation).
❖ **Ensuring fair treatment of all shareholders**	- Providing performance information on integrated strategic objectives ensures sound and fair decision-making that achieves a balance between returns and risks for all shareholders.
❖ **Acknowledging the rights of stakeholders as guaranteed by law or under exchange agreements.**	- Allocating efforts and resources (measures) to all issues that concern shareholders and stakeholders, thereby making informed decisions that take into account the rights and interests of all relevant parties, including shareholders, employees, the community, etc.
❖ **Ensuring accurate and timely disclosure of all significant issues related to the company's strategic direction.**	- Preparing transparent internal and external reports that outline progress made in achieving strategic objectives.
❖ **Ensuring the company's strategic direction and effective management oversight by the board of directors, which is accountable to the company and shareholders.**	- Translating the strategic vision into clear and defined measures for operationalimplementation. - Providing comprehensive performance reports for all of the company's strategic objectives for use by the leadership team. - The hierarchy within the company outlines responsibilities that are linked to the compensation structure, financial incentives, or personal scorecards.

Source: (Smith & Kerridge, 2012, p. 3)

2. Methodology and data

To address the research problem, the researchers utilized a descriptive-analytical approach. We gathered various sources and references related to the study's variables to formulate the theoretical framework. Furthermore, to apply the theoretical concepts to a real-world context, we used a case study approach by selecting the Ain El Kebira Cement Company to examine the study's topic.

To fulfill our research objectives, we distributed questionnaires to company executives, conducted several interviews, and examined various financial statements, dashboards, activity reports, and management reports to collect a comprehensive set of quantitative and qualitative data covering the period from 2017 to 2022.

Ultimately, the collected data was used to design a balanced scorecard model that aligns with the company's vision and strategy and enhances its governance principle.

2.1 A brief overview of Ain *El Kebira* Cement Company

Ain El Kebira Cement Company, a subsidiary of the GICA Group, is a company that specializes in cement production, where it produces millions of tons of Portland cement each year. The following table presents some information about the company:

An overview of Ain El Kebira Cement Company

Table 2

Name of the company	**Ain El Kebira Cement Company « SCAEK »**
Legal Form	SPA
ShareCapital by 2020	2200 000 000 DA
Headquarter	Town of Setif at Bounechada city, ABACHA Ammar Street
Main Activity	- Portland cement with CPD additions: CPJ-CEM II / A 42.5 NA 442 - CRS resistant cement: CPA-CEM I-42,5 ES NA 443 - It may also manufacture CPA 52.5, CPJ 32.5 and petroleum cement where market conditions permit.
Production capacity	3 000 000 tons of Portland cement (CPA) per year
Number of employees	571 employees

Source: Prepared by researchers based on management reports.

2.2 Governance within *Ain El Kebira* Cement Company

Based on the interviews that we have had with the company's directors, heads of departments, and services, we found that the company does not have an integrated and explicit system for corporate governance. Still, rather it has a set of practices and regulatory controls (governance mechanisms) that ensure neutrality, integrity, and transparency in the preparation, exchange, and access to information by stakeholders, which we will explain through the following points.

2.2.1 Ain El Kebira Board of Directors' responsibilities

The company's board of directors consists of seven members, and their principal mission is to control and direct the business and make sure that day-to-day decisions work for the interest of the shareholders. The board members are independent of the company and have the scientific and practical coalification in the industry in which the company operates.

To build the company strategy and guide it with complete transparency, the company's board of directors holds several meetings to check different issues related to company management and see how to develop and enhance company performance to serve the interests of the shareholders. During the board meeting, members deal with several issues such as examining and approving the company's activity reports, examining and approving the company's inventory of stocks and fixed assets, approval of year-end provisions, inviting the shareholders for an annual general meeting, approval of new executive directors' contracts, communicate about the independent auditor of the company, examine and approve different internal regulation and procedures, approval of the internal audit plan, etc.

2.2.2 Internal Audit

To assess the appropriateness of procedures, mechanisms, policies, controls, regulations, organizational structure, and the clarity of authorities and responsibilities at each administrative level, the Audit Department, by the annual program outlined by the Board of Directors, expresses an impartial technical opinion on the effectiveness of governance, risk management, and the internal control system by the prevailing concept in the company. In an attempt to strengthen the governance within the company, the internal audit team accomplishes several tasks such as examining, processing, and evaluating physical inventory discrepancies, examining revenue and expense account reconciliations, examining fixed asset depreciation and amortization, examining the internal control system, inspecting the quality of raw materials and finished products to ensure they meet the company's quality standards, auditing the use of the COSWIN system by the production, purchasing, finance, and warehousing departments, examining financial transactions related to customers and suppliers, and examining bank statements, etc.

2.2.3 External Audit

According to the Commercial Code, the *Ain El Kebira* Cement Company's General Assembly appointed an external auditor to approve the company's annual financial statements, verify their compliance with applicable laws (such as the tax law, finance and accounting regulations, and other legislation), examine and evaluate the internal control system, and detect fraud and financial manipulation. Based on their final report, the external auditor submitted an independent, unqualified report to the General Assembly, supported by several recommendations, some of them highlighted below:

- The company must update treasury management procedures, which include cash flow planning and financial risk management (exchange rate fluctuations, doubtful debts, etc.), by adding provisions related to employing the company's treasury surplus in promising investments by purchasing financial instruments available in the capital market (government bonds, treasury bonds, common stocks, etc.);
- The Company shall submit an annual training program to the Board of Directors for discussion and approval by Article 8 of the Company's Training Procedures (Ref. 10/R.H./2010 issued in November 2010);
- The company must establish procedures for managing land and buildings and a register to record and track these fixed assets.

2.2.4 Compliance with international industrial, environmental, and occupational safety and security regulations and standards

To improve quality and raise the efficiency levels of value chain activities, facilitate international trade, enhance customer confidence, protect the environment, and ensure a healthy working environment, *Ain El Kebira* Cement Company has adopted a set of ISO standards, presented as follows in the table below:

ISOs Standards adopted by the company

Table 3

System Code	System Name	Purpose of the system	The system's role in enhancing governance in the company under study
❖ **ISO 9001**	Quality Management System	The company's commitment to operational management standards to enhance quality and customer satisfaction.	- Documenting policies and procedures and defining responsibilities within the company enhances transparency and accountability. - Reducing negative deviations caused by undesirable factors and adopting clear and accurate performance indicators for

System Code	System Name	Purpose of the system	The system's role in enhancing governance in the company under study
			making informed decisions improves operational efficiency. - Implementing customer satisfaction measurement mechanisms enables continuous improvement in processes and product specifications, ensuring the production of products that align with international production standards and satisfy customers.
❖ **ISO14001**	Environmental Management System	The company's commitment to environmental management standards to improve environmental performance and reduce negative environmental impacts.	- The company's adoption of a strong environmental management system enhances its commitment to social responsibility, thus improving its reputation and increasing its attractiveness to investors, customers, and economic partners. - Integrating environmental considerations into the organization's strategy supports compliance with regulations, reduces risks, and promotes sustainability, thereby supporting long-term profits.
❖ **ISO 45001**	Occupational Health and Safety Management System	The company's commitment to occupational health and safety standards to protect human capital and reduce occupational risks.	- Compliance with local and international regulations related to occupational safety provides a framework for reporting health performance indicators, enhancing transparency and increasing the trust of employees, investors, and customers. - Training programs and preventive measures reduce costs associated with accidents, thereby boosting productivity.

Source: Prepared by researchers-based company documents.

2.3 Balanced Scorecard Design for *Ain El Kebira* Cement Company

To form the company's vision, mission, and strategic objectives, we conducted several interviews with executives, such as the CFO, HR, and production, maintenance, procurement, and R&D managers. We sought to gather all necessary information related to the external and internal environment to develop a SWOT matrix for *Ain El Kebira* Cement Company, highlighting the strengths, weaknesses, opportunities, and threats facing the company as a result of changes in the business environment.

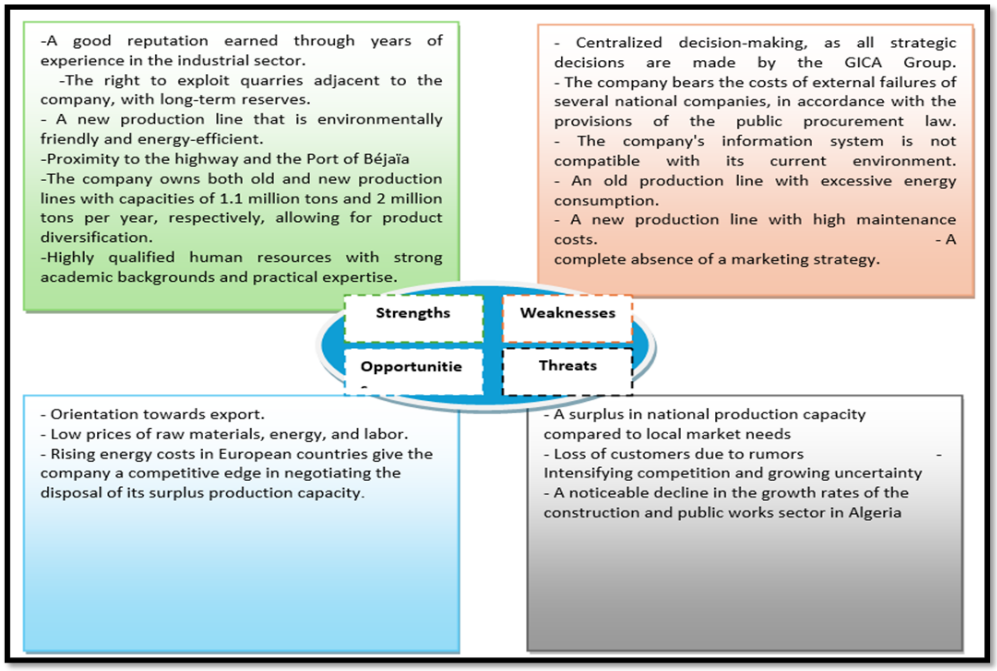

Figure 1. SWOT Analyses ofAin El Kebira Cement Company
Source: Prepared by researchers based on interviews.

Based on the information obtained from the interviews and the SWOT analysis, a balanced scorecard was designed for the company under study as a system for directing and controlling overall performance and thus activating the concept of corporate governance based on the necessity of having a framework that guarantees the strategic direction of the company and the accountability of the Board of Directors for its responsibilities before the company and shareholders.

Proposed balanced scorecard model for the company under study

Table 4

The company's vision	**Towards professionalism, product diversification, balancing cost, quality, and time to gain a sustainable competitive advantage both locally and internationally.**					
The company's mission	**We aim to produce and market cement in all its types according to global quality standards and competitive prices.**					
The company's strategy	The company seeks to enhance its profitability indicators by adopting a cost leadership strategy with continuous improvement in quality, "balancing cost, quality, and time," by focusing on:					
	Continuous improvement in product quality	Flexibility in processing and delivering customer orders	Efficient management of value chain activities to control time and optimize costs			
	Product diversification.	Continuous training for employees	Adopting a quality circles system			
	Providing a motivating work environment that adheres to occupational health and safety regulations.	Rational utilization of available resources.	Investing in green technology to preserve the environment.			
	Satisfying stakeholders.	Adopting modern management systems.				
Dimension	**Strategic objectives**	**Performance drivers**	**Performance metrics**	**Relative weights**		**Mathematical relationship**
Financial perspective	**Financial stability**	Entering new markets Asset control Improving productivity	Altman Z-Score Model	20%	20%	Z= 1.2x_1 + 1.4x_2 + 3.3x_3 + 0.6x_4 + 1.0x_5
Customer perspective	**Increasing market share**	Low selling price Effective marketing policy	Revenue growth rate	20%	6,67%	(Revenue n+1− Revenue n) / Revenue n
	Retention and acquisition of new customers	Attractive credit policy Good reputation	Customer retention rate and new customer acquisition		6,67%	(Number of Customers n+1− Number of Customers n) / Number of Customers n
	Achieving customer satisfaction	Reducing waiting time Continuous improvement of product quality	Customer satisfaction rate		6,67%	Number of Satisfied Customers / Number of Surveyed Customers
Dimension	**Strategic objectives**	**Performance drivers**	**Performance metrics**	**Relative weights**		**Mathematical relationship**
Internal process perspective	**Energy Cost Management**	Rationalizing energy consumption during peak hours	Cost per ton of electricity	30%	5%	Electricity Costs / Quantity of Cement Produced
		Adopting modern manufacturing systems	Cost per ton of gas		5%	Gas Costs / Quantity of Clinker Produced
	Improving Industrial Equipment Operating Efficiency	Striving to implement a zero-defect production system	Production capacity utilization rate for Line 1		5%	Available Hourly Output of Industrial Equipment/Actual Hourly Output of Industrial Equipment
		Implementing a Total Quality Management (TQM) system	Production capacity utilization rate for Line 2		5%	
	Improving Maintenance Process Efficiency	Continuous improvement of maintenance programs	Maintenance process efficiency rate for Line 1		5%	Number of Downtime Hours for Corrective Maintenance of Industrial Equipment / Actual Working Hours
		Production based on available capacity	Maintenance process efficiency rate for Line		5%	
Learning and growth perspective	**Improving employee satisfaction**	Improving employees' living standards (adjusting salaries and wages)	Average Worker Share of User Burdens	15%	5%	Workers' Wages / Number of Workers
		Addressing employees' demands and complaints and working to resolve them amicably				
	Developing employees' abilities and skills	Encouraging initiative and brainstorming	Average Worker Share of Training Costs		5%	Total Training Costs / Number of Workers
		Organizing study days aimed at improving employees' academic qualifications				
	Ensuring occupational health and safety for employees	Conducting training sessions for employees according to their specialties	Work Accident Frequency Rate		5%	((Number of Accidents × Average Number of HoursWorkers Are Exposed to Risk per Year) / (Number of Workers × Daily Working Hours × Number of Days))
		Providing welfare and occupational safety requirements				
		Providing a positive (motivating) work environment				
Environmental and social perspective	**Community Contribution**	Supporting Various Cultural and Social Activities and Providing Community Aid	Community Spending Rate	15%	3%	Community Service Spending Cost / Achieved Revenue
	Rationalization in the Use of Natural Resources	Modifying Old Technologies to Optimize Energy Consumption	Water Consumption Rate per Ton		3%	Water Consumption / Quantity of Cement Produced
			Electricity Consumption Rate per Ton		3%	Electricity Consumption / Quantity of Cement Produced
			Gas Consumption Rate per Ton		3%	Gas Consumption / Quantity of Clinker Produced
	Reduction of Cement Dust Emissions	Investing in Environmentally Friendly Assets	Cement Dust Emission Rate		3%	Average Cement Dust Emission / Quantity of Cement Produced

Source: Prepared by researchers based on interviews.

3. Results and discussion

3.1 Results

Before we discuss this topic, we must highlight the following elements:

- **Target values of indicators**: They represent the goals to be achieved by the company, and we aimed to define their values by preparing a form that includes a group of the targeted values. Using historical data, we distributed this form to the company's managers and other staff to check it by the mark (×) in front of the values that they see as being in line with the capabilities available to the company, taking into consideration the perfectly competitive market in which the company operates. After that, we collect back these forms, calculate the averages of each indicator, and adopt them as targets
- **Minimum values of indicators**: They represent the critical level that allows us to narrow the scope of evaluation and determine performance levels in the same way as the target values of the indicators.
- **Actual results**: Represent the company's actual achievements.
- **Final results**: Represent the comparison between the actual result and the target result, calculated according to one of two cases:
  - A high indicator indicates a positive outcome: Final result = (Actual result / Target result) × Weight.
  - A high indicator indicates a negative outcome: Final result = (Target result / Actual result) × Weight.

3.1.1 Presenting the final results of the financial performance dimension

This dimension, in terms of the overall performance of the company, is considered a final outcome of any company's activity, as it provides an image of the extent of the success of its strategy in achieving the goal of maximizing wealth, thus protecting shareholders' interests (Boulahlib & Kacimi, 2021, p. 307).

Results of financial performance dimension

Table 5

dimension	Strategic Objective	Measurement Indicators	Relative Weight	Target	Achieved Results					
					2017	2018	2019	2020	2021	2022
Financial (1)	Financial Stability(1-1)	(Net Working Capital / Total Assets) * 1.2			0,038	0,036	0,068	0,096	0,128	0,168
		(Retained Earnings / Total Assets) * 1.4			0,407	0,469	0,551	0,582	0,603	0,624
		(Operating Profit Before Interest and Taxes / Total Assets) * 3.3			0,171	0,184	0,098	0,083	0,070	0,058
		(Shareholders' Equity / Total Liabilities) * 0.6			1,393	1,840	1,907	2,032	2,230	2,664
		(Sales / Total Assets) * 1			0,349	0,363	0,261	0,265	0,203	0,217
		Altman Z-Score Model (N)	20%	3.8	2,365	2,773	2,581	2,689	2,769	3,082
Financial perspective Performance			20%		Performance Level					
				Performance Level	3.8	Max		1.8	Min	
dimension	Strategic Objective	Measurement Indicators	Relative Weight		Final Results					
				Target	2017	2018	2019	2020	2021	2022
Financial (1)	Financial Stability (1-1)	(Net Working Capital / Total Assets) * 1.2			Average Final Results =% 14.26					
		(Retained Earnings / Total Assets) * 1.4								
		(Operating Profit Before Interest and Taxes / Total Assets) * 3.3								
		(Shareholders' Equity / Total Liabilities) * 0.6								
		(Sales / Total Assets) * 1								
		Altman Z-Score Model (N)	20%	3.8	12,45%	14,60%	13,58%	14,15%	14,58%	16,22%
Financial perspective Performance			20%		12,45%	14,60%	13,58%	14,15%	14,58%	16,22%
					Very Good=20%	Good=17.89%	Average=15.79%	Weak=13,68%	Very Weak= 11.58%	

Source: Prepared by researchers based on management reports for the years 2017-2022.

3.1.2 Presenting the final results of the customer's performance dimension

When studying and analyzing the customer dimension in the balanced scorecard, company management must accurately answer two main questions: Who are its target customers? And what value does it provide to them? Answering these questions allows the company to precisely define targeted results, such as a market share in targeted sectors, customer retention and acquisition in targeted sectors, and achieving the targeted level of customer satisfaction by offering a distinct value in the market, such as short implementation time, on-time delivery, a continuous flow of innovative products, and the continuous development of new products and methods to meet anticipated customer needs, etc., thus maximizing stakeholder interests (Paul , 2002, p. 15).

Final results of performance of customer dimension

Table 6

dimension	Strategic Objective	Measurement Indicators	Relative Weight	Target	Achieved Results					
					2017	2018	2019	2020	2021	2022
Customers(2)	Increasing market share(2-3)	Annual Revenue fo n (KDA)		20 000 000	17 517 108,68	19 361 062,74	14 736 385,33	15 565 442,89	12 240 807,46	13 509 670,00
		Revenue growth rate (%)	6,7%	114%	100%	111%	84%	89%	69%	77%
		Performance Level			114%	Max		89%	Min	
	Retention and acquisition of new customers (2-2)	Number of Customers n (N)		3000	3 108,00	1 586,00	1 085,00	855	607	358
		Customer retention rate and new customer acquisition (%)	6,7%	97%	100%	51%	35%	28%	20%	12%
		Performance Level			97%	Max		80%	Min	
	Achieving customer satisfaction(2-1)	Number of Satisfied Customers (N)			187	110	104	107	108	113
		Number of Surveyed Customers (N)			200	116	110	114	115	120
		Customer satisfaction rate (U)	6,7%	0,98	0,940	0,948	0,945	0,939	0,939	0,942
		Performance Level			0,98	Max		0,9	Min	
Customers perspective Performance			20,0%		Performance Level					
				Performance Level	20,0%	Max		16,87%	Min	

dimension	Strategic Objective	Measurement Indicators	Relative Weight	Target	Final Results					
					2017	2018	2019	2020	2021	2022
Customers(2)	Increasing market share(2-3)	Annual Revenue fo n (KDA)			Average Final Results =% 5.71					
		Revenue growth rate (%)	6,7%	114%	5,85%	6,49%	4,91%	5,21%	4,04%	4,51%
		Performance Level			Very Good=6,67%	6,38%	Average=6,09%	Weak=5,79%	Very Weak= 5,50%	
	Retention and acquisition of new customers (2-2)	Number of Customers n (N)			Average Final Results =% 2.81					
		Customer retention rate and new customer acquisition (%)	6,7%	97%	6,88%	3,51%	2,41%	1,93%	1,38%	0,79%
		Performance Level			Very Good=6,67%	Good=6,44%	Average=6,21%	Weak=5,99%	Very Weak= 5,76%	
	Achieving customer satisfaction(2-1)	Number of Satisfied Customers (N)			Average Final Results =% 6.50					
		Number of Surveyed Customers (N)								
		Customer satisfaction rate (U)	6,7%	0,98	6,40%	6,45%	6,43%	6,39%	6,39%	6,41%
		Performance Level			Very Good=6,67%	Good=6,56%	Average=6,45%	Weak=6,34%	Very Weak= 6,23%	
Customers perspective Performance			20,0%		Average Final Results =%14.49					
					19,12%	16,46%	13,76%	13,52%	11,80%	11,71%
					Very Good=20%	Good=19,37%	Average=18,75%	Weak=18,12%	Very Weak= 17,49%	

Source: Prepared by researchers based on management reports and company's dashboards for the years 2017-2022.

3.1.3 Presenting the final results of the internal operations performance dimension

In this dimension, executives integrate the objectives and measures of the short-term operations cycle and the long-term innovation cycle in which the company must excel. The board of directors establishes an appropriate strategy, plans, and risk management policies, divides responsibilities and tasks, and monitors employee commitment by applying ethical standards to ensure job performance results in efficiency and effectiveness. Doing this enables the

company's management to provide value propositions that attract and retain customers in the current and targeted market, achieving financial returns that satisfy shareholders in the short, medium, and long terms (Kaplan & Norton, 1996, p. 33).

Final results of performance of internal operations dimension

Table 7

dimension	Strategic Objective	Measurement Indicators	Relative Weight	Target	Achieved Results					
					2017	2018	2019	2020	2021	2022
Internal process (3)	Energy Cost Management(3-4)	Electricity Costs (KDA)			762329	868947	807385	725083	743710	677241822
		Quantity of Cement Produced (Tonne)			2900517	3150497	2312549	2154470	1804999	1613188
		Cost per ton of electricity (DA/Tonne)	5,0%	215	262,83	275,81	349,13	336,55	412,03	419,8158
		Performance Level			215	Max		240	Min	
		Gas Costs (DA)			425042045	407326871	468231156	446553751	423741970	418508828
		Quantity of Clinker Produced (Tonne)			2426483	2797044	2764536	2341620	2355539	2391306
		Cost per ton of gas (DA/Tonne)	5,0%	140	175,17	145,63	169,37	190,7	179,89	175,0127
		Performance Level			140	Max		151	Min	
	Improving Industrial Equipment Operating Efficiency(3-2)	Actual Hourly Output of Industrial Equipment (Tonne/H)		1855	1772,58	1744,49	1689,74	1415,92	1448,54	1433,3
		Available Hourly Output of Industrial Equipment (Tonne/H)		1855	1855	1855	1855	1855	1855	1855
		Production capacity utilization rate for Line 1 (U)	5,0%	1	0,9556	0,9404	0,9109	0,7633	0,7809	0,7727
		Performance Level			1	Max		0,75	Min	
		Actual Hourly Output of Industrial Equipment (Tonne/H)		4065	2 841,66	2 960,04	2 954,57	3 488,42	3 691,66	3 667,42
		Available Hourly Output of Industrial Equipment (Tonne/H)		4065	4020	4065	4065	4065	4065	4065
		Production capacity utilization rate for Line 2 (U)	5,0%	1	0,7069	0,7282	0,7268	0,8582	0,9082	0,9022
		Performance Level			1	Max		0,80	Min	
	Improving Maintenance Process Efficiency (3-1)	Number of Downtime Hours for Corrective Maintenance of Industrial Equipment (H)		1600	2365,94	2130,75	2038,11	2427,87	2673,83	2918,12
		Actual Working Hours (H)		39 097,01	43 597,08	41 874,88	37 768,92	37 411,35	33 499,99	32 064,65
		Maintenance process efficiency rate for Line 1 (U)	5,0%	0,0409	0,0543	0,0509	0,054	0,0649	0,0798	0,0910
		Performance Level			0,0409	Max		0,066	Min	
		Number of Downtime Hours for Corrective Maintenance of Industrial Equipment (H)		1600	5263,83	5049,65	4520,44	6357,31	3121,13	3483,3
		Actual Working Hours (H)		26 588,75	25 509,77	29 189,65	33 722,41	23 676,25	22 178,50	21 726,21
		Maintenance process efficiency rate for Line 2 (U)	5,0%	0,0602	0,2063	0,173	0,134	0,2685	0,1407	0,1603
		Performance Level			0,0602	Max		0,12	Min	
Internal process perspective Performance			30,0%		Performance Level					
				Performance Level	30,0%	Max		22,47%	Min	

dimension	Strategic Objective	Measurement Indicators	Relative Weight	Target	Final Results					
					2017	2018	2019	2020	2021	2022
Internal process (3)	Energy Cost Management(3-4)	Electricity Costs (KDA)			Average Final Results =% 3.24					
		Quantity of Cement Produced (Tonne)								
		Cost per ton of electricity (DA/Tonne)	5,0%	215	4,09%	3,90%	3,08%	3,19%	2,61%	2,56%
		Performance Level			Very Good=5%	Good=4,9%	Average=4,79%	Weak=4,69%	Very Weak= 4,58%	
		Gas Costs (DA)			Average Final Results =% 4.08					
		Quantity of Clinker Produced (Tonne)								
		Cost per ton of gas (DA/Tonne)	5,0%	140	4,00%	4,81%	4,13%	3,67%	3,89%	4,00%
		Performance Level			Very Good=5%	Good=4,93%	Average=4,85%	Weak=4,78%	Very Weak= 4,71%	
	Improving Industrial Equipment Operating Efficiency(3-2)	Actual Hourly Output of Industrial Equipment (Tonne/H)		1855	Average Final Results =% 4.27					
		Available Hourly Output of Industrial Equipment (Tonne/H)		1855						
		Production capacity utilization rate for Line 1 (U)	5,0%	1	4,78%	4,70%	4,55%	3,82%	3,90%	3,86%
		Performance Level			Very Good=5%	Good=4,75%	Average=4,5%	Weak=4,25%	Very Weak= 4%	
		Actual Hourly Output of Industrial Equipment (Tonne/H)		4065	Average Final Results =% 4.03					
		Available Hourly Output of Industrial Equipment (Tonne/H)		4065						
		Production capacity utilization rate for Line 2 (U)	5,0%	1	3,53%	3,64%	3,63%	4,29%	4,54%	4,51%
		Performance Level			5%= ~~a~~	Good=4,80%	Average=4,60%	Weak=4,40%	Very Weak= 4,20%	
	Improving Maintenance Process Efficiency (3-1)	Number of Downtime Hours for Corrective Maintenance of Industrial Equipment (H)		1600	Average Final Results =% 2.07					
		Actual Working Hours (H)		39 097,01						
		Maintenance process efficiency rate for Line 1 (U)	5,0%	0,0409	3,77%	4,02%	3,79%	3,15%	2,56%	2,25%
		Performance Level			Very Good=5%	Good=4,62%	Average=4,24%	Weak=3,86%	Very Weak= 3,48%	
		Number of Downtime Hours for Corrective Maintenance of Industrial Equipment (H)		1600	Average Final Results =%1.04					
		Actual Working Hours (H)		26 588,75						
		Maintenance process efficiency rate for Line 2 (U)	5,0%	0,0602	1,46%	1,74%	2,25%	1,12%	2,14%	1,88%
		Performance Level			Very Good=5%	Good=4,50%	Average=4%	Weak=3,51%	Very Weak= 3,01%	
Internal process perspective Performance			30,0%		Average Final Results=% 21.14					
					21,62%	22,80%	21,43%	19,24%	19,65%	19,86%
					Very Good=30%	Good=28,49%	Average=26,99%	Weak=25,48%	Very Weak= 23,98%	

Source: Prepared by researchers based on management reports and company's dashboards for the years 2017-2022.

3.1.4 Presenting the final results of the learning and growth performance dimension

Achieving the set objectives in the internal operations dimension, customer dimension, and financial dimension is based on the learning and growth dimension. To evaluate the learning and growth performance dimension, we use employee skills, training, organizational culture, information systems, and job satisfaction by identifying the gaps between the current levels of these measures and the targeted levels to fill these gaps, which maintains a sustainable performance for the company in the long term (Paul , 2002, p. 16).

Final results of performance of learning and growth dimension

Table 8

dimension	Strategic Objective	Measurement Indicators	Relative Weight	Target	Achieved Results					
					2017	2018	2019	2020	2021	2022
Learning and growth (4)	Ensuring occupational health and safety for employees (4-3)	Number of Accidents (N)		6	14	16	10	20	19	22
		Average Number of HoursWorkers Are Exposed to Risk per Year (H)		1000000	1000000	1000000	1000000	1000000	1000000	1000000
		Total Actual Working Hours (h)		1 058 840,35	984 907,58	997 779,00	1 073 355,72	1 093 102,36	1 145 057,12	1 107 767,25
		Work Accident Frequency Rate (Injury per Million Working Hours) (N/H)	5,0%	5,67	14,21	16,04	9,32	18,3	16,59	19,85976747
		Performance Level			5,67	Max		14	Min	
	Improving employee satisfaction(4-1)	Workers' Wages (KDA)			1 065 217,68	1 215 228,04	1 516 120,07	1 038 982,30	886 372,56	1 019 440,87
		Number of Workers (N)			512	536	571	564	571	576
		Average Worker Share of User Burdens (DA/N)	5,0%	2 500 000	2 080 503,28	2 267 216,49	2 655 201,52	1 842 167,20	1 552 316,22	1 769 862,62
		Performance Level			2 500 000	Max		1 800 000	Min	
	Developing employees' abilities and skills (4-2)	Total Training Costs (KDA)		34 260	19 724	19 187	23 708	11 189	19 901	21 425
		Number of Workers (N)		571	512	536	571	564	571	576
		Average Worker Share of Training Costs (DA/N)	5,0%	60 000	38 523,81	35 796,03	41 520,14	19 838,92	34 852,89	37 195,76
		Performance Level			60 000	Max		25 000	Min	
Learning and growth perspective Performance			15,0%		Performance Level					
				Performance Level	15,0%	Max		7,71%	Min	

dimension	Strategic Objective	Measurement Indicators	Relative Weight	Target	Final Results					
					2017	2018	2019	2020	2021	2022
Learning and growth (4)	Ensuring occupational health and safety for employees (4-3)	Number of Accidents (N)		6	Average Final Results =%1.0					
		Average Number of HoursWorkers Are Exposed to Risk per Year (H)		1000000						
		Total Actual Working Hours (h)		1 058 840,35						
		Work Accident Frequency Rate (Injury per Million Working Hours) (N/H)	5,0%	5,67	2,00%	1,77%	3,04%	1,55%	1,71%	1,43%
		Performance Level			Very Good=5%	Good=4,41%	Average=3,81%	Weak=3,22%	Very Weak= 2,62%	
	Improving employee satisfaction(4-1)	Workers' Wages (KDA)			Average Final Results=% 2,08					
		Number of Workers (N)								
		Average Worker Share of User Burdens (DA/N)	5,0%	2 500 000	4,16%	4,53%	5,31%	3,68%	3,10%	3,54%
		Performance Level			Very Good=5%	Good=4,72%	Average=4,44%	Weak=4,16%	Very Weak= 3,88%	
	Developing employees' abilities and skills (4-2)	Total Training Costs (KDA)		34 260	Average Final Results=% 1,42					
		Number of Workers (N)		571						
		Average Worker Share of Training Costs (DA/N)	5,0%	60 000	3,21%	2,98%	3,46%	1,65%	2,90%	3,10%
		Performance Level			Very Good=5%	Good=4,42%	Average=3,83%	Weak=3,25%	Very Weak= 2,67%	
Learning and growth perspective Performance			15,0%		Average Final Results =% 11,49					
					9,37%	9,28%	11,81%	6,89%	7,72%	8,07%
					Very Good=15%	Good=13,54%	Average=12,08%	Weak=10,63%	Very Weak= 9,17%	

Source: Prepared by researchers based on management reports and company's dashboards for the years 2017-2022.

3.1.5 Presenting the final results of the social and environmental performance dimension

Companies influence and influenced by the environment in which it operates. This environment represents the source of resources and a platform to display their products, which may face either satisfaction or dissatisfaction with society and the environment. In light of the growing interest of countries and international organizations in social and environmental responsibility, and with growing societal awareness of this dimension, it has become imperative for companies to include it in their strategic plans, as it is a key factor in long-term financial success or failure.

Final results of performance ofsocial and environmental dimension

Table 9

dimension	Strategic Objective	Measurement Indicators	Relative Weight	Target	Achieved Results					
					2017	2018	2019	2020	2021	2022
Environmental and social (5)	Community Contribution (5-1)	Community Service Spending Cost (KDA)			23 169,10	32 656,81	42 130,04	96 168,74	70 497,57	23 211,41
		Achieved Revenue (KDA)			17 517 108,68	19 361 062,74	14 736 385,33	15 565 442,89	12 240 807,46	13 509 760,00
		Community Spending Rate (U)	3,0%	0,0025	0,00132	0,00169	0,00286	0,00618	0,00576	0,00172
		Performance Level			0,0025	Max		0,001	Min	
	Rationalization in the Use of Natural Resources (5-2)	Water Consumption (M3)			285 373,00	173 810,00	159 716,00	153 648,00	92 772,00	91 457,00
		Quantity of Cement Produced (Tonne)			2 900 517,00	3 150 497,00	2 312 549,00	2 154 470,00	1 804 999,00	1 613 188,00
		Water Consumption Rate per Ton (M3/Tonne)	3%	0,05	0,098	0,06	0,07	0,071	0,051	0,05669333
		Performance Level			0,05	Max		0,12	Min	
		Electricity Consumption (Kwh)			326739000	370121000	341084000	316213854	295870000	288540972
		Quantity of Cement Produced (Tonne)			2900517	3150497	2312549	2154470	1804999	1613188
		Electricity Consumption Rate per Ton (Kwh/Tonne)	3,0%	90	112,65	117,48	147,49	146,77	163,92	178,8638224
		Performance Level			90	Max		115	Min	
		Gas Consumption (NM3)			231013544	213916438	251114693	237930372	224125987	225443103
		Quantity of Clinker Produced (Tonne)			2426483	2797044	2764536	2341620	2355539	2391306
		Gas Consumption Rate per Ton (NM3/Tonne)	3,0%	85	95,21	76,48	90,83	101,61	95,15	94,27614157
		Performance Level			85	Max		100	Min	
	Reduction of Cement Dust Emissions (5-3)	Average Cement Dust Emission (mg/Nm3)		25	41,42	23	18,85	16,41	17,37	23
		Quantity of Cement Produced (Tonne)		3 100 000	2 900 517	3 150 497	2 312 549	2 154 470	1 804 999	1 613 188
		Cement Dust Emission Rate (Tonne)(mg/Nm3)	3,0%	0,000081	0,000014	0,000007	0,000008	0,000008	0,00001	0,00001
		Performance Level			0,0000081	Max		0,000016	Min	
Social and Environmental perspective Performance			15%		Performance Level					
				مستوى الأداء	15%	Max		8,85%	Min	
dimension	Strategic Objective	Measurement Indicators	Relative Weight	Target	Final Results					
					2017	2018	2019	2020	2021	2022
Environmental and social (5)	Community Contribution (5-1)	Community Service Spending Cost (KDA)			Average Final Results =% 3.53					
		Achieved Revenue (KDA)								
		Community Spending Rate (U)	3,0%	0,0025	1,58%	2,03%	3,43%	7,42%	6,91%	2,06%
		Performance Level			Very Good=3%	Good=2,64%	Average=2,28%	Weak=1,92%	Very Weak= 1,56%	
	Rationalization in the Use of Natural Resources (5-2)	Water Consumption (M3)			Average Final Results =% 2.24					
		Quantity of Cement Produced (Tonne)								
		Water Consumption Rate per Ton (M3/Tonne)	3%	0,05	1,53%	2,50%	2,14%	2,11%	2,94%	2,65%
		Performance Level			Very Good=3%	Good=2,65%	Average=2,3%	Weak=1,95%	Very Weak= 1,6%	
		Electricity Consumption (Kwh)			Average Final Results=% 1.67					
		Quantity of Cement Produced (Tonne)								
		Electricity Consumption Rate per Ton (Kwh/Tonne)	3,0%	90	2,40%	2,30%	1,83%	1,84%	1,65%	1,51%
		Performance Level			Very Good=3%	Good=2,87%	Average=2,74%	Weak=2,16%	Very Weak= 2,48%	
		Gas Consumption (NM3)			Average Final Results=%2,33					
		Quantity of Clinker Produced (Tonne)								
		Gas Consumption Rate per Ton (NM3/Tonne)	3,0%	85	2,68%	3,33%	2,81%	2,51%	2,68%	2,70%
		Performance Level			Very Good=3%	Good=2,91%	Average=2,82%	Weak=2,73%	Very Weak= 2,64%	
	Reduction of Cement Dust Emissions (5-3)	Average Cement Dust Emission (mg/Nm3)		25	Average Final Results =% 2.71					
		Quantity of Cement Produced (Tonne)		3 100 000						
		Cement Dust Emission Rate (Tonne)(mg/Nm3)	3,0%	0,000081	1,73%	3,46%	3,02%	3,02%	2,42%	1,70%
		Performance Level			Very Good=3%	Good=2,70%	Average=2,40%	Weak=2,10%	Very Weak= 1,80%	
Social and Environmental perspective Performance			15%		Average Final Results =% 12.52					
					9,92%	13,62%	13,24%	16,90%	16,60%	10,62%
					Very Good=15%	Good=13,77%	Average=12,54%	Weak=11,31%	Very Weak= 10,08%	

Source: Prepared by researchers based on management reports and company's dashboards for the years 2017-2022.

3.1.6 Presenting the final results of the overall performance

Which was done through the following round:

Final results of the Company's overall performance

Table 10

Overall Performance Level		Final Results					
		2017	2018	2019	2020	2021	2022
Max	Min	Average Final Results =64.182%					
100%	65,37%	72,48%	76,76%	73,82%	70,71%	70,34%	65,68%
Performance Level		Very Good=100%	Good=93.07%	Average=86.15%	Weak=79.22%	Very Weak= 72.30%	

Source: Prepared by researchers based on management reports and company's dashboards for the years 2017-2022.

Enter your results in this section in the same format (font, size, dimension between lines). A summary of the collected data should be presented in the proportions or totals form, then review the analysis conducted on the collected data using both text and illustrative means In the Appendix) in accordance with the method and tools reviewed above. After presenting the results, their contents can be evaluated and interpreted statistically in the light of the hypotheses and compared with previous studies results (BEKHTI, 2022, p.330).

3.2 Discussion

3.2.1 Analysis of the final results of the financial performance dimension

From Table (05), we note that the financial performance of *Ain El Kebira*Cement Company during the seven years under our study varied between three levels. After achieving a weak level in 2017 due to the decline in the company's liquidity and the increase of its debt (Resulting from financing the second production line through long-term loans), its financial performance rose to an average level in 2018 due to the increase of company's production and sales, then declined again in 2019 and stabilized at the average level in 2021, when the cement sector in Algeria witnessed intense competition due to the lack of demand for cement with a surplus in the national production. As of 2022, the company's financial performance increased and reached a good level because of the varying improvements in debt, liquidity, and activity ratios.

To achieve good and excellent performance levels in this dimension to satisfy shareholders. The board of directors must work to establish an efficient governance framework based on a combination of rules, regulations, controlling procedures, and various mechanisms that define the rights and duties of the different employees and administrators within the company to ensure efficient and effective use of the company's tangible and intangible resources and obtain good

and excellent levels of value creation resulting from customer dimension, the internal operations dimension, the learning and growth dimension, and the social and environmental dimension.

3.2.2 Analysis of the final results of the customer dimension

From Table (06), we observed that the customer performance dimension varies from excellent to very weak levels, where after the company recorded an outstanding performance level in 2017, its performance declined to a very weak level from 2018 until 2022 as a result of the ongoing decline in the number of customers and the decline in its market share due to several considerations, the most important of which are:

- The saturation of the domestic cement market and the decline in local demand due to the sluggishness that has affected the construction and public works sector;
- The involvement of *Biskra cement plant* products in the cement market as competitors of the products of *Ain El Kebira Cement Company* created a surplus in the supply in 2016;
- The company's sales declined in various local areas, which were key revenue sources due to the rumors that were exposed in 2017;
- The company has transitioned from operating in a monopolistic competition market to a perfectly competitive market, where companies near its operational area (Biskra and Lafarge) have production capacity that exceeds its available capacity. These companies have also adopted marketing policies based on price discounts and free transportation for customers while leveraging information technology to process sales operations.

To improve its performance, the company must adopt a customer-centric strategy and shift its overall market outlook to reflect the ongoing changes in the cement market. The company under study can achieve this by creating the value its current and future customers seek and adapting its marketing policies to align with developments in the cement market.

3.2.3 Analysis of the final results of internal operations dimension

From Table (7), we note that the company recognized poorly performance in the internal operations dimension throughout the study period due to the following considerations:

- Regarding energy cost management, the company experienced poor performance in terms of gas and electricity costs per ton throughout the study period, and this was due to the negative deviation recorded in the average actual hourly production compared to the available production capacity, which was due to either technical reasons and/or the

professional incompetence of the workers, particularly about the operation of the company's second production line equipment;

- Regarding improving the operational efficiency of industrial equipment, we note that the company's old production line achieved excellent performance in 2017 before declining in 2018 and 2019 and maintaining good levels. Then, this line achieved a poor level beginning in 2020 due to the technical obsolescence of industrial equipment and the decline in worker satisfaction. On the other hand, the company's new production line recorded poor performance levels between 2017 and 2020 due to the lack of experience of the workforce with the modern technology of the new production line, the frequent breakdowns of strategic industrial equipment, and worker dissatisfaction. However, things got better starting in 2021 as the performance levels of the new line increased from poor to average levels, indicating the beginning of an improvement in workforce efficiency;
- Regarding improving maintenance efficiency, the company recorded poor performance during the study period of the company under study for the old and new production lines. Focusing on the periods between 2019 and 2022, we observed that the company's performance remains critical even though industrial equipment works and 30% of the plant's production capacity is still unused. We estimate that this is due either to ineffective maintenance operations, particularly for the new production line due to its unfamiliar and modern technology, and/or to the poor quality of the new production line's equipment and technology, in addition to the technical obsolescence of the old production line, and/or to the poor quality of other supplies used in the maintenance process (spare parts, oils, greases, etc.).

The executive management of the cement company must improve this dimension's performance by periodically monitoring the extent to which its targets are achieved across its value chain, identifying and eliminating potential causes of value destruction, and continuously improving value-adding activities to build a sustainable competitive advantage.

3.2.4 Analysis of the final results of learning and growth dimension

From Table (8), we observe that the company's performance has varied between weak, average, and very weak levels. After experiencing weak performance in 2017 and 2018, the company improved to an average level in the learning and growth dimension in 2019. However, this improvement was short-lived, as performance declined rapidly and stabilized at very weak levels at the beginning of 2020. This decline can be attributed to several factors:

- Employees are dissatisfied with the compensation they receive for their efforts in performing their duties. Starting in 2020, the company reduced compensation by 70% of total wages due to declining sales;

- The company's total expenditure on employee training was consistently low, fluctuating between low, medium, and, at times, very low throughout the study period. This is concerning given that the company's workforce needs extensive training to master advanced manufacturing technology for the second production line and to enhance their skills in modern management systems. These improvements are essential for the company to elevate its competitive advantage with the new rivals in the fully competitive market;
- The frequency of work-related accidents ranged from low to very low throughout the study period despite the company's expenditures on implementing occupational health and safety plans for workers.

To enhance performance in this area, the company should prioritize its human capital as a primary resource for its wealth development. To do so, the cement company must increase employee satisfaction and improve job performance. Strategies may include creating an incentive system focused on wealth creation, ensuring a work environment that adheres to internationally recognized health and safety standards, and offering training courses that align with the demands of a dynamic business landscape.

3.2.5 Analysis of the final results of social and environmental dimension

Table (7) shows the variation in performance across the social and environmental dimensions at four different levels. After experiencing very weak performance in 2017, this dimension improved to better levels in 2018, then reached excellent levels in 2019, 2020, and 2021. However, in 2022, performance declined back to weak levels due to several factors:

- The company's performance, in terms of the company's contribution to community building, improved significantly over the years. The company's performance started at weak levels in 2017, progressed to average levels in 2018, and then reached good levels from 2019 to 2021, achieving its peak during the COVID-19 pandemic. However, in 2022, the company's performance declined to average because of the decrease in sales. This trajectory highlights the management's commitment to the community, as social responsibility is one of the key factors in long-term wealth creation;
- The company demonstrated poor performance in energy consumption efficiency throughout the study period, particularly concerning electricity usage. This inefficiency stemmed from suboptimal use of the available production capacity of its industrial equipment. Additionally, gas consumption, which was previously at an excellent level, declined to an average level in 2019 and fell to a very weak level starting in 2020. This trend can be attributed to an increase in overall energy consumption alongside a decrease in clinker production, indicating ineffective utilization of the clinker hourly production capacity. On the other hand,

the company showed improvement in water consumption due to using water treatment and reuse systems. This initiative helped alleviate the water crisis faced by residents of neighboring cities;

- The company reduced cement dust emissions and achieved good results during the study period. This success was largely due to its significant investments in green technology aimed at reducing cement dust and greenhouse gas emissions—issues that had led to numerous skin diseases among factory workers and residents of nearby areas, as well as considerable damage to local vegetation. These efforts enhanced the company's social image and reduced the environmental taxes imposed on it.

3.2.6 Analysis of the final results of overall performance

The company's overall performance, as shown in Table (09), has fluctuated between weak and very weak levels throughout the study period. This variability resulted from factors discussed previously in each dimension of the balanced scorecard.

4. Conclusion

In conclusion, based on the influence of the shift of *Ain El Kebira Cement Company* from a monopolistic competition market to a fully competitive market. We recommend that the company adopt an Enterprise Resource Planning (ERP) system and implement a corporate governance framework. Additionally, integrating the balanced scorecard enhances governance by promoting transparency, ensuring accountability, and supporting operational and strategic decision-making. This approach will help achieve a balance between stakeholder objectives, empower the strategy of the company, and enable it to differentiate itself from competitors. Ultimately, these measures aim to satisfy customer needs and maximize shareholders' wealth

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