

**Ecole des Hautes Etudes Commerciales
d'Alger
EHEC**

**Thesis Submitted in Partial Fulfillment of the Requirements for
Master's Degree in Commercial Sciences**

Major: Finance and accounting

Topic:

**ANALYSIS OF FINANCIAL DISCLOSURE
QUALITY AMONG LISTED COMPANIES
CASE STUDY: ALGERIA 2018-2023**

Submitted by:

Ms. Meriem DELLIOU

Supervised by:

Mme. Faiza BENIKHLEF

Professor at EHEC

**12th Graduation
JUN 2025**

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Dedication



“We don’t exist unless there is someone who can see us existing, what we say has no meaning until someone can understand, while to be surrounded by friends is constantly to have our identity confirmed; their knowledge and care for us have the power to pull us from our numbness.”

Alain de Botton, “The Consolations of Philosophy”



I dedicate this thesis to anyone and everyone who acknowledged my existence during the process of writing it.

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Abstract

In the perspective of the ongoing economic reforms in Algeria supporting the transition from bank-based to market-based financing, the analysis of disclosure quality among companies listed on the Algiers stock exchange is of particular interest. Because transparency has always been a core value of stock markets, and stakeholders today value information just as much as they value capital performance.

The goal of this research work is to study the factors that influence of the quality of financial disclosure divulged by companies listed on the Algiers stock exchange.

To answer this research problem, we first calculated a disclosure quality index on the basis of an information grid applied to each firm's annual reports over the study period. We then ran a bivariate and a multivariate analysis between this disclosure index and the variables company size, industry affiliation, financial leverage and listing age.

We concluded that the company size, financial leverage and industry affiliation have a positive effect on the disclosure quality of listed companies.

The results of this quantitative analysis have allowed us to understand the disclosure practices of companies listed on the stock exchange and suggest improvement perspectives.

Keywords: financial disclosure, determinants, Algiers stock exchange, quality, annual report, listed companies.

Résumé

Dans la perspective des réformes économiques en cours en Algérie, qui soutiennent la transition d'un financement bancaire à un financement de marché, l'analyse de la qualité de la divulgation des entreprises cotées en bourse est d'un intérêt particulier. En effet, la transparence a toujours été une valeur fondamentale des marchés boursiers, et les parties prenantes accordent aujourd'hui autant d'importance à l'information qu'à la performance du capital.

L'objectif de ce travail de recherche est d'étudier les facteurs qui influencent la qualité de l'information financière divulguée par les entreprises cotées à la bourse d'Alger.

Pour répondre à cette problématique de recherche, nous avons d'abord calculé un indice de qualité de la divulgation à partir d'une grille d'information appliquée aux rapports annuels de chaque entreprise au cours de la période d'étude. Nous avons ensuite effectué une analyse bivariée et multivariée entre cet indice de divulgation et les variables taille de l'entreprise, appartenance sectorielle, levier financier et ancienneté de cotation.

Nous avons conclu que la taille de l'entreprise, le levier financier et l'appartenance à un secteur d'activité ont un effet positif sur la qualité de la divulgation des entreprises cotées en bourse.

Les résultats de cette analyse quantitative nous ont permis de comprendre les pratiques de divulgation des entreprises cotées en bourse et de suggérer des perspectives d'amélioration.

Mots clés : divulgation financière, déterminants, bourse d'Alger, qualité, rapport annuel, sociétés cotées.

ملخص

من منظور الإصلاحات الاقتصادية الجارية في الجزائر التي تدعم الانتقال من التمويل القائم على البنوك إلى التمويل القائم على السوق، فإن تحليل جودة الإفصاح في الشركات المدرجة في البورصة يكتس أهمية خاصة. لأن الشفافية كانت دائماً قيمة أساسية في أسواق الأسهم، كما أن أصحاب المصلحة اليوم يقدرون قيمة المعلومات بقدر ما يقدرون أداء رأس المال. لذلك فإن الهدف من هذا العمل البحثي هو دراسة محددات جودة الإفصاح المالي الذي تقدمه الشركات المدرجة في بورصة الجزائر.

للإجابة عن هذه المشكلة البحثية، قمنا أولاً بحساب مؤشر جودة الإفصاح على أساس شبكة معلومات مطبقة على التقارير السنوية لكل شركة خلال فترة الدراسة. ثم أجرينا بعد ذلك تحليلاً ثنائي المتغيرات ومتعدد المتغيرات بين مؤشر الإفصاح هذا ومتغيرات حجم الشركة، والانتفاء الصناعي، والرافعة المالية، وفترة الإدراج.

خلصنا إلى أن حجم الشركة والرافعة المالية والانتفاء الصناعي لها تأثير إيجابي على جودة إفصاح الشركات المدرجة في البورصة.

وقد أتاحت لنا نتائج هذا التحليل الكمي فهم ممارسات الإفصاح لدى الشركات المدرجة في البورصة واقتراح وجهات نظر تحسينية.

الكلمات المفتاحية: الإفصاح المالي، محددات جودة، بورصة الجزائر، الجودة، التقرير السنوي، الشركات المدرجة في البورصة.

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General
Introduction

In 2014, Algeria entered into a severe crisis, which led to a decline in its fuel revenues by more than 40%, therefore leading to a decline in all economic indicators. The COVID-19 pandemic, aggravated this situation even more, causing a near cessation to many economic activities and leading to significant financial losses for companies.

These crises serve to confirm two realities on which many studies, reports, and university research agree: the banking sector, until now considered the main source of funding in Algeria, has proven time and time again unable to meet the financial needs of the economy. Moreover, these financial downturns confirm the strong dependence of the Algerian banking sector on the hydrocarbons sector. It is precisely this dependence that reignited discussions on the need to diversify the sources of financing for the Algerian economy and, consequently, the issue of revitalizing the role of the stock market in the economy.

Reporting is of increasing relevance for today's stock markets. While reporting has, for a long time, mostly represented a compliance duty, companies are devoting a growing amount of human and financial resources to the disclosure process. This change is mostly due the fact that shareholders, employees, and local communities also value information other than corporate financial performance. Improving financial disclosure and transparency take a whole new level of importance in a budding stock market such as that of Algeria, where the consistent development efforts bear little fruit.

It is in this context, that we are present this research where we study the quality of financial disclosure divulged by companies listed on the Algiers stock exchange, as well as the different factors influencing the quality of this information.

The selection of this topic was the result of both personal and academic considerations, firstly, the importance of supplementing the evolving Algiers stock exchange with relevant updated academic material, as well as a personal interest in observing how the disclosure practices of the generally conservative Algerian company manifest in a market where transparency is a fundamental requirement.

This study is of two main interests, to evaluate the disclosure quality of companies listed on the Algiers stock exchange, and to determine the factors that influence the variations in their disclosure quality.

Since our research problem centers around evaluating then explaining the phenomenon of financial disclosure on the Algiers stock exchange, it can therefore be summarized and stated as the following sentence: **what are the factors that influence the quality of financial disclosure among listed companies in Algeria?**

To be more precise, in the course of this research we try to answer the following questions:

- Do larger companies display better quality financial disclosure?
- Does creditor pressure influence financial disclosure quality?
- Does financial disclosure quality differ between industries?
- What is the relationship between the listing duration and financial disclosure quality?

In order to address this problem, we have developed an explanatory model, linking theoretical research with a case study. According to our literature review, disclosure can be explained through three approaches: corporate legitimacy, stakeholder's pressure and isomorphic influences.

The explanatory factors derived from the theoretical model are four in number: the factors in relation to corporate legitimacy are company size and listing age, financial leverage for stakeholder's or creditor's pressure, and industry affiliation for isomorphic or mimetic influences.

Each explanatory factor is the subject of a research hypothesis, formulated to answer our research problem:

- **H1: There is a positive relationship between company size and the quality of financial disclosure.**
- **H2: A positive relationship exists between financial leverage and financial disclosure quality.**

- **H3: Companies in the pharmaceutical industry offer better quality financial disclosure than companies in non-pharmaceutical industries.**
- **H4: There is a positive relationship between listing age and financial disclosure quality.**

To accomplish this thesis, we conducted documentary research and a quantitative analysis. The documentary research is based on previous theoretical and empirical research, the annual reports of the listed companies, and official stock exchange websites. The empirical side of this research is composed of two major parts, measuring disclosure quality and quantitative analysis. First, a disclosure index is calculated to measure disclosure quality. This index is based on an information grid developed by GUERZA. N and GUETTOUCHI. N in 2023, which is applied to the annual reports of the listed companies between 2018-2023 through a dichotomous scoring method as a proxy for the overall disclosure level of a company in that year. After calculating the disclosure index, we use the program SPSS to treat and analyze our data through a series of statistical test.

This work is organized in three chapters, each chapter divided in two sections:

Chapter one: Overview of the stock markets: The first section of this chapter is a presentation of fundamental notions supporting financial markets; the second section of this chapter seeks to shed light on the history and the current state of affairs of the Algiers stock exchange.

Chapter two: Disclosure quality, theories and measures: this chapter first deals with essential aspects of financial disclosure and the theories behind it, the second part of this chapter is reserved for a discussion on the basis of our analysis model, in other words the determinants and measures of disclosure quality.

Chapter three: Determinants of disclosure quality among companies listed on the ASE: This chapter englobes the empirical analysis part of our thesis. In the first section, we give a general presentation of the listed companies, then explain our research methodology. Lastly, and in the second section of this chapter, we discuss the results of our statistical analysis and tests, then we wrap the most important results in a synthesis to offer suggestions to the relevant parties.

*Chapter One: Overview of
the Stock Markets*

Introduction

Financial markets are channels that allow the direct transfer of funds between economic agents with excess of funds to those in need, therefore, well-functioning financial markets are key to a dynamic and efficient economy. Especially stock markets, with most countries gradually turning from bank centered financial systems, to what is essentially stock exchange anchored finance.

In keeping up with the evolving global financial landscape, and in an effort to diversify the sources of funds flowing in the economy, the financial system in Algeria has undergone significant transformations since the early 1990s, led by the creation of a stock exchange.

In this chapter, where we will first take a step back to discuss financial markets as a whole, then stock exchanges; their instruments, their role in the economy and the major institutions in this field. Secondly, we will focus on the Algiers stock exchange, its history, actors and compartments, and finally how this exchange operates.

Section One: Key concepts on stock exchanges

1.1. Financial markets: definition, functions and types

1.1.1. Definition and function

Financial markets are markets in which the supply and demand of funds meet in the form of financial instruments, Among the definitions of financial markets in literature we can find that:

Frederic Mishkin defines financial markets as “*markets in which funds are transferred from people who have an excess of available funds to people who have a shortage*”¹

As for S.Gurusamy, a financial market is “*an institution or an arrangement that facilitates the exchange of financial instruments*”²

Therefore, just like any market, financial markets are a device which brings together buyers and sellers, specifically for the trade of financial instruments, although it is important to note that a financial market may or may not have a physical form; with the introduction of new technology, financial markets have come to offer some of the best examples of buyers and sellers interacting over a widely dispersed geographical area.³

Financial markets perform the essential economic role of channeling funds from households, firms, and governments, that have surplus funds as a result of their income being greater than their spending, to those that have a shortage of funds because their income does not cover the amount they wish to spend in a specific period of time. By accomplishing this role, financial markets render the following functions:⁴

- Enhance the individual and national income by Allowing lenders to earn interest or dividends on their surplus investible funds,

¹ F.S. MISHKIN and S.F. EAKINS “*Financial Markets and Institutions*” Pub. Prentice Hall; 7th Edition, New York, 2011, p.43.

² S. GURUSAMY, “*Capital markets*” Pub. Vijay Nicole, New Delhi, 2009, p.17.

³ P. HOWELLS and K. BAIN, “*Financial Markets and Institutions*”, Pub. Financial Times/ Prentice Hall; 5th edition, 2007, p.34.

⁴ S. GURUSAMY, op.cit, p.18-19.

- They allow for the productive use of savings thus increasing the gross national production,
- Aid capital formation of a country by providing a channel through which new savings flow,
- Through a mechanism called “the price discovery process” they enable the pricing process of the traded financial asset via the confrontation between offer and demand,
- Promote marketability and liquidity of financial assets by allowing investors to trade them,
- Reduce the cost of financial assets through the dissemination of information to various segments of the market, generated by the activities of the participants in the financial markets.

1.1.2. Types of financial markets

Financial markets can be categorized in several ways:

1.1.2.1. Primary and Secondary Markets

A primary market is a financial market where users of funds issue and sell new securities to initial investors, these fund users do not have sufficient internal resources to cover their needs, thus they issue securities in the external primary market to raise additional funds.

A secondary market is a financial market where already issued securities can be traded between different investors.¹

1.1.2.2. Money and Capital Markets

Money and capital markets can also be referred to as short term and long-term financial markets;

¹ F.S. MISHKIN and S.F. EAKINS, op.cit. p.59.

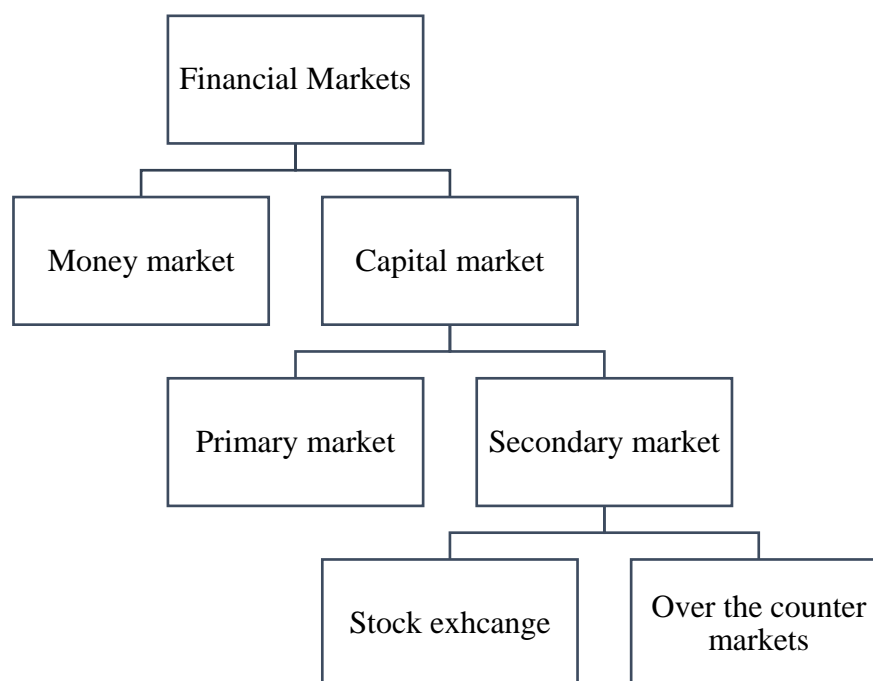
Money markets are financial markets where debt securities or instruments with maturities of a year or less are traded, like treasury bills, federal funds, repurchase agreements, commercial paper, negotiable certificates of deposit, and banker's acceptances.

Capital markets are financial markets where debt and equity instruments with maturities of more than one year are traded as in corporate stock, corporate bonds, treasury bonds, state and local government bonds.¹

1.1.2.3. Exchanges and Over-the-Counter Markets

A secondary market can be held in two ways: exchanges and over the counter markets. when the trade of securities is conducted in one central regulated location it is called an exchange, in over-the-counter markets, unlike the centralized exchanges, transactions are completed via an electronic market in which investors dealers at different locations buy and sell securities, as the over-the-counter markets do not have a physical trading floor or a central location.² Figure No.1 illustrates the types of financial markets and their structure :

Figure 1:Types of financial markets



Source: adapted from F.S. MISHKIN and S.F. EAKINS.op.cit.

¹ F.S. MISHKIN and S.F. EAKINS. op.cit. p 61.

² Ibid. p. 346.

1.2. Definition of the stock exchange

The stock exchange is a secondary, organized capital market; as it deals with the trade of issued long term securities in an organized centralized location, this view of the stock exchange as a market is widely adopted in official publications, for example:

The American Securities Exchange Act defines an exchange as “*Any organization, association, or group of persons, whether incorporated or unincorporated, which constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities*”¹.

According to the European financial market directive (MIFID), the stock exchanges are defined as regulated markets that enable the trade of financial instruments.²

The world federation of exchanges defines a stock exchange as “*an organized marketplace, licensed by a relevant regulatory body, where ownership stakes (shares) in companies are listed and traded.*”³

It follows that a stock exchange can be defined as a regulated, organizational framework for a market where securities are traded.

1.3. The origins of the modern-day stock exchanges

The origins of the modern-day stock exchanges can be traced back to 13th century Bruges, Belgium, west Europe, where commodity traders met in the house of a man named “Van der Bourse” the same house which later became an institution known as the “Bruges Bourse”. Around the same time, Italian merchants in Genoa, Florence and Verona traded government securities.⁴

¹ American Securities Exchange Act of 1934, Section 3(a)(1), U.S. Government Printing Office, 1934.

² The European Financial Market Directive, Art 4, part 1, point 14. Directive 39, EC,2004.

³ E. MUSONERA and V. SAFARI “*Establishing a Stock Exchange in Emerging Economies: Challenges and Opportunities*”, in The Journal of International Management Studies, Vol 3, No 2, August, 2008, p62-68.

⁴ S. VALDEZ and P. MOLYNEUX “*An Introduction to Global Financial Markets*” Pub. Palgrave; 8th Edition, London, 2016, p.229.

Later in 1553, a group of 225 merchants put £25 each to finance the equipment of three commercial ships for their voyage from England to Russia, sharing the cost and the eventual profits, and thus starting the trade between England and Russia, the company's name was Muscovy and as the shares were held jointly; hence they were a 'joint stock company'.

In 1600, the famous East India Company was formed and was dominant in trading up to about 1850, followed by the Hudson's Bay Company which was created in 1670. With the importance of the Dutch Empire at the time, we also see the formation of the Dutch East India Company in 1602 and the Dutch West India Company in 1621. Of these early trading companies, several are still in existence, the most famous being the Hudson's Bay Company, with it coming up to 355 years of age in May of 2025.

Eventually, trading began in the shares of these companies, which lead Amsterdam to open a stock exchange in 1611. The Austrian Bourse opened in Vienna in 1771, at first to trade government bonds to finance war, but by the end of the 19th century, it became one of Europe's most important financial centers counting 2,500 equities listed.

In London, brokers met in New Jonathan's Coffee House to regulate the market, which was converted into the 'Stock Exchange' in 1773.

As for America, A newspaper called The Diary wrote in an issue of March 1792 that stock traders met each noon at 22 Wall Street, the New York Stock Exchange board was later set up in 1817, inspired by the success of an organization set up by brokers in Philadelphia. By 1850, the US had 250 stock exchanges, which were dominated by New York by 1900 due to the introduction of the telegraph.

An even earlier example than the Muscovy Company of a shareholding company comes from France, with the Société des Moulins du Bazacle in Toulouse, which was listed on the Toulouse Stock Exchange until 1946. In France, A stock exchange, known as a bourse, first emerged in Lyons in 1540. The dealers operating there were formally recognized as agents de change (stockbrokers) through a decree in 1639. Later, a bourse was established in Paris in 1724, though it appears to have been relatively inactive in its early years. In 1791 During the French revolution, the agents de change were abolished, and the Paris exchange was shut down in 1793. However, under Napoleon, the bourse was officially reopened in 1801.

1.4. the role of a stock exchange in the economy

Although the basic role of a stock exchange is to serve as a center for the trade of securities, stock exchanges can also serve the investors, corporations and the whole economy in many other ways summarized as follows:

1.4.1. Economic barometer

Stock exchanges serve as a health indicator for companies and economy as a whole, since all major changes in the country or the economy are reflected in the rise or fall of share prices. In other words, stock market indices act as forerunners for entrepreneurs and governments for appropriate and timely decision-making regarding shifts in the economic landscape.¹

1.4.2. Sound price setting

Stock markets provide perfect market conditions; they are well regulated by institutions and governments, their market activities are standardized, they allow the free flow of information on shares and companies, and transaction costs are limited. Thus, stock markets facilitate a limitless and free competition among the traders of securities, which allows for a fair price setting to take place based on present and future supply and demand.²

1.4.3. Creating investment opportunities for small investors

The stock market is accessible to both large and small investors, it breaks the capital barrier between small savings and investment because investors can buy the number of shares that is proportionate to their available savings. Therefore, the stock market provides a channel of extra income for small investors, and promotes habits of saving and investment in households.³

1.4.4. Raising Government capital for development projects

The stock exchange serves as an alternate to taxes as a source of public funds; government and local authorities sell bonds to finance huge infrastructure projects, these bonds are sold on the stock exchange where other economic agents can buy them.⁴

¹ S. GURUSAMY, *op.cit*, p.187

² *Ibid.*

³ E. MUSONERA and V. SAFARI, *op.cit.*

⁴ *Ibid.*

1.4.5.Redistribution of wealth

The stock market helps reduce income inequalities by giving investors the chance to take a share of the profits of a business set up by other people, by means of acquiring the company equities listed on the stock market and thus becoming part-owners.

1.4.6.Mobilizing savings for investment

Stock exchanges are the perfect tools for the optimal allocation of funds in an economy, they allow the effective use of scarce financial resources in industry and commerce to maximize social advantages, because only the enterprises that fill the market's requirement of profitability and efficiency can approach the market for capital funds.¹

1.4.7.Liquidity

Many lucrative investments demand a long-term capital commitment, yet investors often hesitate to give up control of their funds for extended periods. Liquid equity markets reduce investment risk and enhance attractiveness by enabling savers to purchase equity assets and sell them swiftly and cost-effectively whenever they require access to their savings or wish to adjust their portfolios.²

1.5. Types of securities traded on the stock exchange

Securities are tradable and interchangeable financial instruments, that represent a specific financial value. To qualify as a security, the value must be transferable through buying, selling and trading on the market, ensuring liquidity and negotiability.³

1.5.1.Equities

1.5.1.1. Definition

¹ S. GURUSAMY, op.cit,188.

² A. DEMIRGUC-KUNT and R. LEVINE “*Stock Markets, Corporate Finance, and Economic Growth: An Overview*” The World Bank Economic Review, VOL10, No 2, February 1995, p.p. 223-239.

³ L'Arbi Ben M'Hidi University, lesson on “*Financial Securities*”,3rd Year Financial Management, Faculty of Economics, Business, and Management, Department of Management.p.1.

‘Equities’ also known as company shares or corporate stock, are financial instruments that confer to their holders the ownership of a part of a firm, shares give their holders claims to variable future streams of income, paid out of company profits and commonly known as dividends.¹

1.5.1.2. Types of corporate stock

Two main types of corporate stock exist; common stock and preferred stock²:

a) Common stock

Common stock or ordinary shares is the fundamental ownership claim in a public or private corporation, common stock can be differentiated from other financial instruments through the following characteristics:³

- Common stockholders do not have special or guaranteed dividend rights, and if they do not receive dividends, they have no legal recourse. Rather, the payment and size of dividends are determined by the board of directors of the issuing firm (who are elected by the common stockholders),
- Common stockholders have a residual claim, which means that in the event of a bankruptcy, they have the lowest priority claim on a corporation’s assets,
- Common stockholders have limited liability; their losses are limited to the amount of their original investment in the firm,
- A fundamental privilege assigned to common stock is voting rights, common stock holders exercise control over the firm’s activities indirectly through the election of the board of directors, one vote is assigned per share of common stock.

b) Preferred stock

A Preference share is a hybrid security that has characteristics of both a common stock and a bond, it represents an ownership claim in the issuing firm like a common stock does, and

¹ P. HOWELLS and K. BAIN, op.cit. p.172.

² A. SAUNDERS and M. MILLON CORENETT, “*Financial Markets and Institutions*” Pub. McGraw-Hill/Irwin, 5th Edition, New York, 2012, p. 297.

³ Ibid.

usually offers the owner a fixed rate of dividend each year, like a bond. However, just like common stock, if the firm has insufficient profits the amount paid may be reduced, there is no guarantee that an annual income will be received, unlike with debt capital.¹

Preferred stockholders generally do not have voting rights in the firm, but any missed dividend payments and must be made up before any common stock dividends can be paid.

c) Other types of shares

In addition to ordinary shares and preference shares there are other, more unusual, types of shares:²

- **Non-voting shares or reduced voting shares:** These shares are usually issued by companies who need equity finance but want to avoid diluting their ownership like family-controlled firms. These shares are often called ‘A’ shares or ‘B’ shares (or N/V) and usually get the same dividends and the same share of assets in a liquidation as voting shares.
- **Deferred ordinary shares:** Deferred ordinary shares rank lower than ordinary shares for an agreed rate of dividend, so in a year the ordinary holders might get their payment while deferred ordinary holders receive nothing.
- **Golden shares:** Golden shares are a special type of shares that give the right to block a takeover or to restrict the influence of minority shareholders in a shareholders meeting.

1.5.2. Bonds

1.5.2.1. Definition

Bonds are long-term debt securities issued by companies and government units³, bondholders lend money in return of predetermined regular future payments which may consist of interest and a capital sum at the end of the bond’s life.⁴

¹ G. ARNOLDS, “*The Financial Times Guide to the Financial Markets*”, Pub. Pearson Education Limited, London, 2012, p.314.

² G. ARNOLDS, op.cit. p.317.

³ A. SAUNDERS and M. MILLON CORENETT, op.cit. p.212.

⁴ G. ARNOLDS, op.cit. p.254.

1.5.2.2. Types

Bonds come in various types, each one with distinct issuers, yield potential, and risk level:¹

a) Municipal bonds

Local authority and municipal bonds are government issued bonds at a sub-national level, such as a county, city or state, which pay a fixed rate of interest and are repayable on a specific future date, similar in fact to Treasury bonds.

b) Foreign bonds

Foreign bonds are corporate bonds, issued in the country of denomination, by a firm based outside that country.

c) Index-linked bonds

Both the value and the coupon of an index-linked bond are updated each year in line with lagged changes in a specified price index, to keep up with inflation.

d) Callable and puttable bonds

Callable bonds can be redeemed at the issuer's discretion prior to the specified redemption date. Puttable bonds can be sold back to the issuer on specified dates, prior to the redemption date.

e) Coupon zero bonds

Zero-coupon bond are bonds that pay no interest but are sold at a discount to the payment that will eventually be received.

f) Treasury bonds

Treasury bonds are bonds issued by the national treasury to support public projects and spending,

g) Convertible bonds

Convertible bonds are corporate bonds, issued with the option for holders to convert into some other asset (usually equities) on specified terms at a future date.²

¹ G. ARNOLDS, op.cit. p.254.

² A. SAUNDERS and M. MILLON CORENETT, op.cit. p.154.

h) Islamic bonds (sukuk)

Sukuk (the plural form of the Arabic word Sakk) are bonds which conform to Shari'ah (Sharia) law, which forbids interest income, or riba. sukuk represent part ownership of tangible assets, businesses, or investments, so the returns are generated by some sort of share of the gain (or loss) made, and the risk is shared.

1.5.3. Derivatives**1.5.3.1. Definition**

A derivative security is a financial security for which the payoff is linked to another, previously issued security. Derivatives are contracts which give the right, and sometimes the obligation, to buy or sell a quantity of the underlying, or benefit in another way from a rise or fall in the value of the underlying. The most common underlyings include commodities, shares, bonds, share indices, currencies and interest rates.¹

1.5.3.2. Types of derivatives**a) Forwards**

A forward contract is a contractual agreement between a buyer and a seller at time zero to exchange a specific asset for cash at some future date. Market participants trade forward contracts because the future (spot) price or interest rate on an asset is uncertain. Rather than risk that the future spot price will move against them or that the asset will become more expensive to buy in the future, forward traders pay a financial institution a fee to arrange a forward contract; such a contract lets the market participant hedge the risk that future spot prices on an asset will move against him or her by guaranteeing a future price for the asset today.²

b) Futures

A futures contract, like a forward contract, is an agreement between a buyer and a seller at time zero to exchange a standardized, prespecified asset for cash at some later date. One difference between forwards and futures is that forward contracts are shared liability agreements. Another difference relates to the contract's price; in a forward contract the price is fixed over the

¹ G. ARNOLDS, op.cit. p.254.

² A. SAUNDERS and M. MILLON CORENETT, op.cit.p.370.

life of the contract, whereas a futures contract's price is decided by the supply and demand of the market.¹

c) Options

An option is a contract giving one party the right, but not the obligation, to buy or sell a financial instrument, commodity or some other underlying asset at a given price, at or before a specified date. The purchaser of the option can either exercise the right or let it lapse.²

d) Swaps

A swap is an exchange of cash payment obligations. A contract whereby two parties agree to exchange (swap) payments, based on some notional principal amount is known as 'swap'. Only the payment flows are exchanged and not the principal amount.³

1.6. Major Stock exchanges around the world

Since the nineteenth century stock markets have prospered and expanded globally. New markets have appeared in developing countries, to join and rival the traditional stock markets:⁴

1.6.1. The London Stock Exchange

The London Stock Exchange is the oldest in the English-speaking world, The Council of Associated Stock Exchanges was formed in 1890, with an amalgam of stock markets in England. By 1967, they had grouped themselves into six regional stock exchanges, which finally became part of the Stock Exchanges of Great Britain and Ireland, with trading floors in London, Birmingham, Manchester, Liverpool, Glasgow and Dublin.

1.6.2. North American Stock Exchanges

1.6.2.1. New York Stock Exchange (NYSE)

The New York Stock Exchange was created in 1817, Trading on the NYSE is conducted on a dealer-to-dealer basis, without jobbing intermediaries.

1.6.2.2. American Stock Exchange (AMEX)

¹ Ibid.p.372.

² G. ARNOLDS, op.cit. p.399.

³ S. GURUSAMY, op.cit. p.112

⁴ Ibid.

The American Stock Exchange was created in 1953, by the second generation of street traders in stocks and bonds who could not qualify for a listing on the NYSE. AMEX is based on a central market floor with specialist firms, which have a commitment to make a market in certain issues.

1.6.2.3. NASDAQ system

The National Association of Securities Dealers Automated Quotations System, known as the NASDAQ, is the largest stock market in the world. It was started in 1971. It was regarded as the forerunner of the global stock markets of the future. Round-the-clock trading is available to investors from around the world through a fully computerized system. It is the third largest trading system in the world after the NYSE and Tokyo Stock Exchange.

1.6.3. Canadian Exchanges

In terms of market capitalization, Canada is the world's fourth largest public equity market. The three major stock exchanges in Canada are the Toronto Stock Exchange, the Montreal Stock Exchange, and the Vancouver Stock Exchange.

1.6.4. The Stock Exchanges of Japan and the Pacific Basin

1.6.4.1. Japan

The Tokyo Stock Exchange (TSE) was set up in 1878, nearly a hundred years later than the London and New York stock exchanges.

The other stock exchanges in Japan are Osaka, Nagoya, Kyoto, Hiroshima, Fukuoka, Nigata and Sapporo.

1.6.4.2. Hong Kong

The Hong Kong stock exchange was set up in 1914. This is the least restricted market in the world, having no exchange controls and no distinction between resident and nonresident investors.

1.6.4.3. Australia

The first stock exchange was founded in Melbourne in 1865. Then one in Sydney in 1871, one in Brisbane in 1884, one in Adelaide in 1887, and finally Hobart and Perth in 1891 followed

this. All these exchanges now stand amalgamated under the ‘Australian Stock Exchange Ltd.’ (ASX).

1.6.5. Indian Stock Exchanges

1.6.5.1. Bombay stock exchange

The first stock exchange established in India known as “The Bombay Stock Exchange” (BSE), which was founded in 1887, The Bombay Stock Exchange made a significant contribution to the growth of the equity cult and to the development of the Indian capital market.

1.6.5.2. National stock exchange of India

NSE is one of the world’s largest exchanges, with its headquartered in Mumbai, NSE is India’s leading stock exchange. Established in 1992 as the first demutualized electronic exchange in the country.

Table 1: The world's largest 10 stock exchanges at the end of 2010, ranked according to domestic market capitalization of equities

Stock exchanges	Domestic equities market capitalization (Million Dollars)	Total share trading in year (Million Dollars)	Number of listed companies
NYSE Euronext	13,394,082	17,795,600	2,317
NASDAQ OMX	3,889,370	12,659,198	2,778
Tokyo SE Group	3,827,774	3,787,952	2,293
London SE Group	3,613,064	2,741,325	2,966
NYSE Euronext	2,930,072	2,018,077	1,135
Shanghai SE	2,716,470	4,496,194	894
Hong Kong Exchanges	2,711,316	1,496,433	1,413
TSX (TMX) Group (Canada)	2,170,433	1,368,954	3,741
Bombay SE	1,631,830	258,696	5,034
National Stock Exchange India	1,596,625	801,017	1,552

Source: World Federation of Exchanges: www.worldexchanges.org.

Section two: Introduction to the Algiers Stock Exchange

2.1. Historical background and organization of the Algerian stock market

2.1.1. Presentation of the market

The Algerian stock market was established in May of 1993 By the legislative decree No. 93-10, amended and supplemented by the Law 03-04 of February 17, 2003, which defines Algiers stock exchange as being a framework for the organization and the processing of transactions on transferable securities issued by the government, legal entities under the jurisdiction of public law, and private companies.¹

2.1.2. Evolution of the Algerian stock market

The evolution of the Algerian stock market can be outlined through the following phases:²

1990: The General Assembly of the Participation Funds decided on September 9th, 1990, to create a stock exchange under the name "Société de Valeurs Mobilières"(SVM), with a total capital of 320,000.00 dinars, subscribed and equally distributed among the shareholders.

1992: The statutes of the SVM were modified by its General Assembly, increasing its equity capital to 9,320,0 00 Dinars and changing its name from SVM to the "Stock Exchange" (Bourse des Valeurs Mobilières).

1993: The year 1993 was marked by the enactment of Legislative Decree No. 93-10 on the stock exchange, which constituted the first legal text governing the financial market in Algeria. This decree established the institutions composing the Algerian financial market and led to the dissolution of the “Bourse des Valeurs Mobilières.”

1996: This year saw the official creation of Algeria’s financial market authority under the name “Commission d’Organisation et de Surveillance des Opérations de Bourse” (COSOB).

¹ Ministry Delegate for Participation and Investment Promotion, “*Investing in Algeria*”, p.83.

² Z. ZERFA, “*La tenue de compte-conservation de titres en Algérie*”, in *دفاتر البحوث العلمية* Volume 1, No 3, November 2013, p.p. 47-59.

1997: Two key institutions for the financial market were created: the “Société de Gestion de la Bourse des Valeurs “(SGBV) and the intermediary departments for stock market operations within banks and insurance companies.

1998: The year 1998 marked the first issuance of securities in Algeria with the SONATRACH bond loan, which had a five-year maturity and an interest rate of 13%.

1999: This year marked the creation of the secondary compartment of the stock market and the introduction of the first security, the equity shares of ERIAD Sétif.

2003: In this year, Legislative Decree No. 93-10 was amended and supplemented, establishing a new institution, “Algérie Clearing”, and enforcing the dematerialization of securities.

2012: The Algiers Stock Exchange, through the enactment of COSOB Regulation No. 12-01 of January 12, 2012, which amended and supplemented regulation No. 97-03 on the general regulations of the stock exchange, saw the creation of a new segment dedicated to small and medium-sized enterprises.

2.1.3. Market segments

The official listing of the Algiers Stock Exchange consists of several segments, with differentiated admission requirements to accommodate the size and financial situation of the company:¹

2.1.3.1. The equity securities market

This market is divided into two segments:

a) Main market: Intended for large enterprises, As of February 2025, there is a total of 5 companies listed on this segment of the market:

- SAIDAL group and Biopharm: active in the pharmaceutical sector,
- EGH el Aurassi: active in the tourism sector,

¹ <https://cosob.dz/entreprises-et-professionnels-du-marche/entreprises/sgbv/> , Consulted on 2/21/2025 at 9:09 PM.

- Alliance Assurances: active in the insurance sector,
- Credit Populaire d'Algérie (CPA): active in the banking sector.

b) SME market: Reserved for Small and Medium-Sized Enterprises (SMEs), at the moment, it hosts two SMEs:

- AOM invest.
- Moustachir JSC

2.1.3.2. The debt securities market

This market consists of two segments:

a) Corporate bond market: For bonds issued by joint-stock companies, as of February 2025, this segment of the market is not active.

b) Treasury bonds market: Reserved for assimilable treasury bonds issued by the Algerian Public Treasury.

2.2. Market participants

2.2.1. Market authority

2.2.1.1. The securities and investments organization and monitoring commission (COSOB)

a) Presentation:

The securities and investments organization and monitoring commission usually referred to as (COSOB) is the regulatory authority for the Algerian stock market. It is independent, endowed with legal personality and financial autonomy.¹

b) Missions

In accordance with Article 30 of the aforementioned legislative decree, COSOB is responsible for organizing and supervising the securities market, ensuring in particular:²

¹ Commission d'Organisation et de Surveillance des Opérations de Bourse, “*rapport annuel activité du marché des valeurs mobilières*”, 2023

² Ibid.

- The protection of savings invested in securities or any other financial product involving a public offering;
- The proper functioning and transparency of the stock market.

c) Functions and powers

In order to fulfill its missions, *COSOB* is endowed with the following functions and powers:¹

- **Regulatory Power:** COSOB issues the regulations and instructions necessary for the proper functioning of the market.
- **Supervision and Control Power:** to ensure:
 - Compliance with legislative and regulatory requirements by market participants,
 - That companies making public offerings comply with the disclosure obligations to which they are subject,
 - The proper functioning of the market.
- **Organizational function:** COSOB plays a key role in regulating the securities market by:
 - Granting approval visas for the notices issued by companies or organizations seeking to raise public funds through securities issuance, stock market listings, or public offerings. This approval ensures the completeness and relevance of the provided information but does not assess the quality of the operation.
 - Licensing brokerage firms (IOB), Variable Capital Investment Companies (SICAV), Mutual Investment Funds (FCP), and Participatory Investment Advisors (CIP).
 - Authorizing pre-approved banks, financial institutions, and IOBs to manage securities accounts.
 - Registering listing sponsors and authorized securities traders.

¹ Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *Guide d'intervenants de marché* ». p.5.

- Recognizing evaluators for companies undergoing a stock market listing.
- Advising the Ministry of Finance on licensing requests for private equity firms and investment fund management companies.

- **Disciplinary and Arbitration Power:** A disciplinary and arbitration chamber is established within the Commission, which is competent to investigate:
 - Any breach of the professional and ethical obligations of brokerage firms (IOB) and any violation of the legislative and regulatory provisions applicable to them,
 - Any technical dispute arising from the interpretation of the laws and regulations governing the functioning of the stock market.

2.2.2. Market entities

2.2.2.1. Company of stock exchange management (SGBV)

a) Presentation

The SGBV is a joint-stock company established as the manager of the Algiers Stock Exchange. Its share capital is held by licensed brokerage firms (IOB), and its statutes, as well as the appointment of its key executives, are approved by the minister in charge of finance after consultation with COSOB.¹

b) Missions

The SGBV is responsible for:

- The practical organization of securities listings on the stock exchange,
- The physical organization of transactions and trading sessions,
- Recording negotiations conducted by brokerage firms,
- Managing a trading and quotation system,
- Publishing information related to stock market transactions,

¹ Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *Guide d'intervenants de marché* ». p.6.

- Issuing an official listing bulletin under the supervision of the commission.

2.2.2.2. Central depository

a) Presentation

The central securities depository or Algérie clearing is the entity responsible for ensuring cash settlement against the delivery of securities. Algérie Clearing is a joint-stock company, its statutes and the appointment of its key executives are approved by the Minister in charge of finance after consultation with COSOB, its share capital is open to the SGBV, brokerage firms, issuing companies, as well as the Public Treasury and the Bank of Algeria.

b) Missions

Algérie Clearing carries out the following missions under the supervision of COSOB:¹

- Settling transactions conducted on the stock exchange and the over-the-counter market,
- Ensuring the conservation of securities,
- Managing the transfer of securities from one account to another,
- Administering securities to enable authorized participants to exercise their related rights (payment of interest and dividends),
- Handling the legal codification of securities,
- Publishing market-related information,
- Dematerializing the securities of listed companies.

c) Its members

The following entities may become members of the central securities depository:²

- Account keeper-Custodians authorized by COSOB,

¹ <https://cosob.dz/entreprises-et-professionnels-du-marche/entreprises/algerie-clearing/>,
Consulted 2/22/2025 at 2:14 p.m.

² Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *Guide d'intervenants de marché* ». p.7.

- Licensed brokerage firms and Treasury Securities Specialists (SVT) authorized by the General Directorate of the Treasury;
- Legal entities issuing securities admitted to the central securities depository's operations,
- Foreign central securities depositories,
- Any other entity operating in the securities sector, subject to approval by the depository's board of directors.

2.2.3. Market professionals

2.2.3.1. Brokerage firms (IOB)

a) Presentation

Brokerage firms (IOB) are legal entities licensed by the market authority to primarily engage in the trading of securities listed on the stock exchange, entities eligible for IOB licensing are banks and financial institutions, and commercial companies established for this purpose.¹ Currently, the Algerian stock market has eleven brokerage firms, the public banks : BADR, BDL, BEA, BNA, CNEP-Banque, and CPA, as well as three private banks: Société Générale Algérie, Banque Al Baraka d'Algérie, and Al Salam Bank Algeria. In addition to two private companies: Tell Markets and Invest Market.²

b) Activities

IOB are licensed by COSOB to carry out one or more of the following activities:³

- Trading securities on behalf of third parties,
- Trading securities for their own account,
- Providing investment advisory services for securities,

¹ Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *Guide d'intervenants de marché* ». p.7.

²<https://www.sgbv.dz/?page=rubrique&lang=fr&smode=48#:~:text=Actuellement%20la%20place%20financi%C3%A8re%20d,Tell%20Markets%20et%20Invest%20Market> , Consulted 2/22/2025, at 3:05 p.m.

³ <https://cosob.dz/entreprises-et-professionnels-du-marche/professionnels-du-marche/iob/> , Consulted 2/22/2025, at 3:10 p.m.

- Managing individual investment portfolios under a written contract,
- Managing Collective Investment Schemes portfolios,
- Placing securities and financial products,
- Underwriting and guaranteeing the successful completion of securities issuances,
- Safekeeping and administering securities (securities account management),
- Advising companies on capital structure, mergers, and acquisitions.

2.2.3.2. Account keeper-custodian of securities (TCC)

a) Presentation

Securities account-keeping and custody involve registering securities in the name of their holders and safeguarding the corresponding assets, according to the specific terms of each securities issuance.

Entities authorized or eligible for approval by the markets authority include: banks and financial institutions, brokerage firms, issuing companies, for the securities they issue and manage directly, and institutions authorized to conduct banking operations under applicable legislative and regulatory provisions.¹

The account keeper-custodians currently authorized by COSOB are: The public banks (BADR, BDL, BEA, BNA, CNEP-Banque, CPA) and the private bank BNP Paribas El Djazair.²

b) Activities

The activities of account-keeping and custodian institutions include:

- Safeguarding and administering securities entrusted to them on behalf of their holders,
- Executing received instructions (pledging, transfer, mutation, etc.),

¹ Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *Guide d'intervenants de marché* ». p.9.

² <https://cosob.dz/entreprises-et-professionnels-du-marche/professionnels-du-marche/tcc/> , Consulted 2/22/2025 at 3:16.

- Carrying out transaction related to securities (payment of dividends, interest, rights transfers, etc.),
- Informing holders about transactions affecting their securities.¹

2.2.3.3. Listing sponsors

a) Presentation

A listing sponsor (promoteur en bourse) can be either a broker firm or a financial consulting firm registered with COSOB. Their mission is to assist any company planning to list on the SME market of the Algiers stock exchange.

The role of a stock market promoter can be carried out by: a bank or financial institution, a brokerage firm, a company specialized in financial engineering or legal consulting. Banks, financial institutions, and brokerage firms authorized for advisory activities are automatically registered on the list of listing sponsors, provided they designate an authorized representative, the listing sponsors currently operating in the Algerian stock market are the banks: BADR, BDL, BEA, BNA, CNEP Banque, and CPA, and the private company RMGC.²

b) Role of listing sponsors

The sponsor is involved both before and after a company enters the stock exchange:³

- **Before the IPO:**
 - Prepares the company's listing on the SME market,
 - Advises and assists the company in preparing its application.
- **After the IPO:**

¹ <https://cosob.dz/entreprises-et-professionnels-du-marche/professionnels-du-marche/tcc/> , Consulted 2/22/2025 at 3:16.

² <https://cosob.dz/entreprises-et-professionnels-du-marche/professionnels-du-marche/promoteurs-en-bourse/> , Consulted on 2/22/2025 at 4:39.

³ Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *Guide d'intervenants de marché* ». p.10.

- Continuously ensures that the listed company meets its periodic disclosure obligations,
- Reminds the company of its reporting duties, provides necessary guidance to address any shortcomings, and informs COSOB if needed.

2.2.3.4. Collective investment schemes in securities (OPVCM)

A collective investment scheme in securities aims to create and manage a portfolio of securities and other financial products on behalf of third parties. It is authorized to collect savings, with the purpose of investing them in the financial market according to a well-defined investment policy. The savings collected by OPCVM can be invested in various types of securities and other financial products (stocks, bonds, negotiable debt securities, etc.)¹

There are two main legal types of OPVCM:

a) Open-ended investment company (SICAV)

A joint-stock company that issues share as subscription requests arise. The shares issued by a SICAV do not grant preferential subscription rights during capital increases.

b) Mutual fund (FCP)

A co-ownership of securities without legal personality that issues units. Unit holders do not have the rights of shareholders. The FCP is managed by a fund manager who acts on behalf of the unit holders and in their exclusive interest.

2.3. Listing on the Algiers stock exchange

2.3.1. Listing requirements

The rules regarding the conditions for the admission of securities to stock market trading are defined by the market authority and can be summarized in the following table:

¹ Commission d'Organisation et de Surveillance des Opérations de Bourse, « *Guide d'information sur des OPVCM* ». p.1.

Table 2: The requirements for listing on the Algiers stock exchange

Market/Conditions	Equity securities market		Debt securities market	
	Main market	SME market	Bond market	Treasury bond market
Legal form	JSC	JSC	JSC Public institutions The government	The government (the treasury)
Minimum paid-up share capital	500.000.000 DA	Not limited	/	/
Minimum share capital to be publicly floated / outstanding	20%	10%	500.000.000 DA	/
Certified and published financial statements	Last 3 fiscal years, with the most recent result required to be profitable	Last 2 fiscal years	Last 3 fiscal years	/
Internal audit structure	Required	Required+ the appointment of a listing sponsor for 5 years	Required	/
Number of holders on the listing day	150 shareholders	50 shareholders 3 institutional investors	/	/

Source : Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *introduction en bourse* ». p.5.

2.3.2. Listing process

The listings or the initial public offering (IPO) consists of three important phases:¹

¹ Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *introduction en bourse* ».

2.3.2.1. The prelisting phase

a) Decision on the Operation

Only an extraordinary general meeting of the company can decide to carry out a public offering. It may delegate to the Board of Directors or the Executive Board only the powers necessary to make it effective.

b) Legal Preparation of the Company and Shareholding

The IPO process requires a thorough legal review, as the company may need to modify its statutes, legal structure, or capital structure to meet listing requirements.

c) Company Valuation

The company must have its assets evaluated by a member of the order of chartered accountants other than its statutory auditor or by any other expert recognized by the commission. This valuation will be used to determine the selling or issuance price of the shares.

d) Selection of the Lead brokerage firm or listing sponsor for SMEs

On the main market, the company is required to appoint a lead brokerage firm, as for small and medium-sized enterprises, they must appoint a stock market sponsor for a period of five years, responsible for assisting them.

e) Preparation of the Draft Information Notice

The company is required to submit a draft information notice to the market's authority, detailing all relevant aspects of its activities, financial situation, strategy, and the characteristics of the issued securities (number, price, legal form, etc.).

f) Submission of the Admission File

The admission file must include

- An admission request,
- Minutes of the authorized body that decided or approved the issuance,
- A draft information notice,
- A draft prospectus,

- General information about the issuer,
- Information on capitalization,
- Economic and financial information,
- Legal documents,
- A valuation report for the share issuance.

g) COSOB approval

The Commission has a period of two months to review the file and subsequently grant or deny its approval.

h) Membership in the Central Securities Depository

Before the IPO, the company must register with the Central Securities Depository to record its entire share capital in the case of a stock issuance or the loan amount in the case of a bond issuance.

i) Marketing Campaign

To ensure the successful placement of its securities, the issuer launches a marketing campaign through various media (radio, television, newspapers, etc.) and distributes prospectuses and information notices across the placement syndicate's network of agencies.

j) Sale of Securities

The sale is generally conducted through the banking network. Investors submit their purchase orders directly to bank branches that are members of the placement syndicate, along with a deposit covering the value of the requested securities.

k) Disclosure of Results

If the listing requirements are met, the offer is declared successful, and the results of the operation are made public, otherwise, the listing of the security will be rejected.

l) Settlement of the Operation

The settlement of the operation is carried out by the Central Securities Depository three business days after the disclosure of the results.

2.3.2.2. Listing Phase

This phase marks the beginning of the security's trading after the company has obtained authorization from COSOB to proceed with its stock market entry; the Algiers Stock Exchange publishes a notice in an edition of the Official Listing Bulletin (BOC), specifying the date of the first trading session and the initial listing price of the security, and the results of the first trading session are made public by the exchange's management company and published in the BOC.

2.3.2.3. Post-Listing Phase

This phase occurs immediately after the security's first listing on the stock exchange and its subsequent performance in the market.

a) Liquidity Contract

To regulate stock prices, companies are authorized to buy back their own shares under a liquidity contract. This contract is signed between the company and the brokerage firm and defines the conditions under which the firm acts on behalf of the issuer to enhance the liquidity of the securities and ensure the stability of their trading.

b) Information Disclosure

Once the security is listed on the stock exchange, the issuer must inform the public of any significant changes or important events that could have a substantial impact on the stock price. Additionally, the issuer is required to publicly disclose and submit management reports as well as annual and semi-annual financial statements to COSOB and SGBV.

2.4. Investing on the Algiers stock exchange

Investing on the Algiers stock exchange cannot be done directly by an individual investor, it is necessary to pass through a brokerage firm.

To invest on the stock market, the investor should:¹

2.4.1. Choose a brokerage firm

The investment in securities on the stock exchange has to pass through a broker approved by the market's authority, the brokerage firm takes on negotiations on behalf of their clients.

¹ Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *Investir en bourse* », p.8.

The trade of treasury bonds involves additionally another category of financial intermediators; treasury bonds specialists approved by the general directory of the treasury.

2.4.2. Open a securities and cash accounts

To be able to buy and sell securities on the stock exchange, it is necessary to have a linked securities and cash accounts, in order to open a securities account, the investor should: present a valid proof of identity, fill out a securities account opening form, and sign two copies of an account opening agreement.

2.5. Orders

2.5.1. Passing orders

An order in stock market is an instruction given by an investor to his broker to buy or sell securities, in the form of a form filled out at the brokerage firm.

These orders must contain certain elements defined by the market's regulations such as: type of transaction (purchase/ sale), the characteristics of the security being traded, the number of securities being traded, the price limit, the validity period. references to the order issuer. Once the order received, the brokerage firm must ensure that the investor has the financial instruments or the funds necessary to complete the transaction.¹The exchange orders can take multiple forms depending on their price, duration and quantity:²

- Price limited order.
- At-best order or a market order: an order with no price indications, this order is executed at the best conditions of the market.
- Day order: an order valid only on the stock market session following its transmission.
- A revocation or a good-till-cancelled order: this order is valid until its executed or until the last trading session of the current calendar month.
- Time limited order: an order with a validity period of 30 days

¹ Commission D'organisation Et De Surveillance Des Opérations De Bourse, « *Investir en bourse* », p.10.

² Ibid.

- Execution order: an order that is valid until its execution, or until 3 weeks have passed since its issuance.
- All-or-none order: This order cannot be executed partially.
- No stipulation order: this order can be executed partially.

2.5.2. Executing orders

Once the order is received by the broker, it is presented for execution. Stock exchange sessions take place on the trading floor Mondays and Wednesdays from 9:30 AM to 11:00 AM for stocks and corporate bonds, and from Sunday to Thursday for Treasury Bonds. The negotiations are conducted automatically through an electronic quotation system.

Although the regulations on the Algiers Stock Exchange provide two quotation methods: fixing and continuous trading, since the effective start beginning of activities on the stock exchange, only the fixing method has been implemented¹; The fixing quotation method consists of applying a single quotation price for the collective transactions for each security during a trading session.

At the end of each session block trades are executed, they represent the purchase and sale of orders involving a large quantity of stocks and/or bonds. Once the trading session is over, the management company of the stock exchange publishes the results of the session on its trading floor, on television and on its internet website.

After the execution of orders, the transfer of securities sold and the settlement of securities purchased simultaneously take place, on the Algeria clearing system, since its implementation, securities have been dematerialized. They are recorded in securities accounts and managed by account keeper-custodians.

¹La bourse d'Alger, « les ordres de bourse » p.5.

Conclusion

Over time, global stock exchanges evolved into highly regulated and structured financial institutions, and stock markets have become the center of the modern financial systems. They serve as venues for productive capital allocation, investment opportunities, and economic growth. They provide companies and governments with access to direct funding through an assorted set of financial instruments while offering investors of varying capacities less risky opportunities to diversify their portfolios.

The Algerian stock market, established in the early 1990's represents a part of the country's efforts to modernize its financial system, despite the government efforts to establish a solid foundation for a functioning market through regulatory reforms, increased market incentives, and greater financial education, the Algiers stock exchange remains relatively small in size compared to international markets, the number of listed companies and transactions remains limited.

Moving forward, fostering greater transparency could be the key to encouraging public, private sector and even foreign market participation and unlocking the market's full potential as part of the country's development strategy.

Chapter Two:
Financial Disclosure;
Theories and Measures

Introduction

Disclosure is a fundamental practice in financial markets, requiring any company offering securities to continuously divulge all relevant information to the public. By promoting transparency and accountability on corporate reporting, disclosure can significantly impact investor confidence and market efficiency.

Owing to the important role it plays, disclosure must be measured in some way. Measuring disclosure quality or extent allows for comparisons across firms, and enables the analysis of the different elements that influence this practice.

This chapter explores the theoretical foundations and different measurement methods of financial disclosure quality. In a first section, we start by examining key concepts centering around disclosure, to then delve into theories underpinning this practice. The second section of this chapter is reserved for a discussion about different disclosure measurement techniques and their effectiveness in capturing the quality of disclosure.

Section One: Conceptual framework of financial Disclosure

1.1. Fundamental aspects of disclosure

1.1.1. Financial communication and disclosure

Communication represents an integral part of the activities of the contemporary enterprise, it has the role of “*the establishment of lasting trusting relationships and constructive external interactions*¹” as asserted by Daniela M. SALVIONI, In addition to the commercial, internal and corporate communication an important type of communication is represented by the financial communication, defined as “*the sum of the relations with the providers, clients, employees, thirds, with the bodies competent in the economical field, but also with the press. This involves the information collecting and dissemination for drawing up and spreading of some complete and proper financial statements*”² by Aurelia Dumitru, Alina Georgiana Motoi and Andrei Bogdan Budică.

In essence, financial communication refers to the strategies and vectors employed by companies to share financial information and engage with stakeholders. Key financial communication activities include investor meetings, earnings calls, roadshows, annual reports, market analysis and crisis communication. In other words, while disclosure provides factual financial data, communication ensures that information is clearly conveyed to stakeholders.³

1.1.2. Definition of disclosure

Corporate disclosure, financial disclosure, or disclosure in the business context is a multidimensional concept. As a result, disclosure theories do not offer a comprehensive definition of the term, or the exact list information that it should entail:

¹ D. M. Salvioni, “*Transparency Culture and Financial Communication*”, Symphonya. Emerging Issues in Management, No. 2, 2002, pp. 22-33.

² A. Dumitru, A. G. Motoi, and A. B. Budică, “*The Financial Communication and Financial Communication Strategy*”, in Globalization and National Identity. Studies on the Strategies of Intercultural Dialogue, 2016, pp. 445–458.

³ S.Zhuyin, and M. Ali, “*Financial Communication and Stakeholder Relations*», (Ed.) Strategic Financial Management, Emerald Publishing Limited, Leeds, 2024, pp. 135-154.

Gibbins, Richardson and Waterhouse define financial disclosure as “any deliberate release of financial (and non-financial) information, whether numerical or qualitative, required or voluntary, or via formal or informal channels”.¹

According to Kennedy Prince Modugu, “corporate disclosure is intended to provide information on the operating activities and the financial and business situation of a firm to an interested audience.”²

For Etienne Farvaque, Catherine Refait-Alexandre and Dhafer Saïdane, corporate disclosure is the communication of internal business information between firms and third parties.³

Disclosure is therefore the intentional release of financial and non-financial information on the business operations by a firm to external actors, through a variety of channels.

1.1.3. Mediums of disclosure

The medias of disclosure are all the supports that allow the flow of qualitative and quantitative information concerning the performance of business enterprises to a wide variety of users by means of statements and reports. There are many media adopted by the companies for dissemination of information to the users. These include:⁴

- Prospectus or the IPO notice,
- Press releases,
- Advertising,
- Magazines, periodicals, booklets, brochures, leaflets and posters,

¹ M. Gibbins, A. Richardson and J. Waterhouse. “*The Management of Corporate Financial Disclosure: Opportunism, Ritualism, Policies, and Processes*”, Journal of Accounting Research, Vol.28, No.1, 1990, pp. 121-143.

² K. P. Modugu, “*Corporate Disclosure: A Synthesis of Literature*” International Journal of Accounting and Financial Reporting, 2018, Vol. 8, No. 3. p.2.

³ E. Farvaque, C. Refait-Alexandre D. Saïdane “*Corporate Disclosure: A Review Of Its (Direct And Indirect) Benefits And Costs*”, International Economics, Vol. 128, 2011, pp. 5-32.

⁴ P.M. Madhani, “*Corporate Disclosure: Concepts and Practices*”, pub. ICFAI University Press, Hyderabad, 2008, p.67.

- Statutory reports, interim reports,
- Audio Visual media: presentation to financial analysts and other investor groups, press conferences, radio, exhibitions, television,
- Shareholders' Annual General Meeting.
- Publications of professional and other accounting bodies,
- Official reports and publications of stock exchanges,
- Interviews between management representatives and professionals,
- financial analysts' reports,
- Digital media: corporate websites, public websites,
- Published company annual reports.

1.1.3.1. The annual report as a Medium of Disclosure for listed companies

The published corporate annual report is a vital source of information for investors, it represents the most easily accessible source of basic information on an enterprise. It is the end product of all accounting processes, and it reflects the perfect combination of recorded facts, accounting conventions and personal judgements of the preparer.¹

There are several important reasons for treating annual reports as a valuable source of information to the shareholders and other users. Firstly, they provide authenticated information about the issuing entity because they are an audited document, Secondly, it is relatively more accessible than any other source of information, thirdly an annual report is a comprehensive document that contains, besides financial statements, other valuable non-financial information such as: historical data, strategy and future outlooks, performance ratios, human resources insights, etc. Which are not provided by any other single medium. And lastly, previous research indicates that annual reports provide a good proxy for the level of the overall information

¹ J. Lal, "Corporate annual reports - Theory and practice", pub. Sterling Publishers Pvt Ltd, New Delhi, 1985, p.40.

disclosed by a company,¹ and that the information contained in annual reports is positively correlated with the information provided in other sources.² Hence the annual report is the most important document in corporate reporting for shareholders and the public in general.

However, the soundness of judgements and decisions made based on these documents depends on the competence and integrity of those who make them, and their adherence to generally accepted accounting principles. Therefore, there is always a need to make published annual reports more informative so that their users can make better-informed economic decisions.³

1.1.4. Users of Corporate Annual Reports

The identification of user groups helps management in defining the specific type of information to be presented in the report as well as the manner of presentation. The corporate annual reports are used by a variety of groups for diverse purposes, report users can either be direct or indirect users:⁴

Direct users: shareholders, creditors, bankers, customers, employees and labor organizations, suppliers, tax authorities and government.

Indirect users: those who do not have personal use for the information, but need it to help those who have direct interest in a firm or to provide financial advice, this category includes: financial analysts, brokers, stock exchanges, financial press and reporting agencies.

These user groups have different objectives and diverse informational needs, but issuing separate reports for different users is not feasible. Therefore, regardless of the degree of coincidence of various groups' interests, the most effective and efficient report will be achieved when the focal point of the report is the dominant group; the existing or potential investors, who remain the primary user of corporate annual reports. Thus, the preparers of annual reports should

¹C.A. BOTOSAN, “*Disclosure level and the cost of equity capital*”. The Accounting Review, Vol.72, No 3, July,1997, pp. 323-349.

² M. LANG and R. LUNDHOLM, “*Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures,*” Journal of Accounting Research, Vol. 31, No. 2, 1993, pp. 246-271.

³ P.M. Madhani, op.cit, p.69.

⁴ Ibid, p.44.

give top priority to their requirements while deciding about the items of information to be disclosed through annual reports.

1.1.5. Types of disclosure in annual reports

Corporate disclosure can be divided into two broad categories, mandatory disclosure and voluntary disclosure:¹

1.1.5.1. Mandatory disclosure

Mandatory disclosure is intended as the minimum level of disclosure done in fulfillment of disclosure requirements derived from certain legal obligations, standards by professional organizations, and listing rules of stock exchanges. In short, a major goal of compulsory disclosure is achieving the public interest, namely satisfying the users' informational needs. Mandatory disclosures can help reduce informational inequalities and the costs incurred by private information searches.² Some International and national disclosure standards are presented below:

a) International accounting standards

Internationally, the two main standard-setting bodies for disclosure in annual reports are the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB). While both boards work toward high-quality financial reporting, IASB focuses on global standards, whereas FASB governs accounting practices in the U.S. By defining various financial information presentation standards, they ensure a certain uniformity in disclosure practices while presumably meeting the various information needs which voluntary disclosures alone cannot satisfy.³

¹ O. HASSAN and C. MARSTON, "Disclosure Measurement in the Empirical Accounting Literature", SSRN Electronic Journal, 2010, July, p.8.

² A. GHIO and R. VERONA "The Evolution of Corporate Disclosure", pub. Springer Nature, Switzerland, 2020, p.65.

³ I. IZZA, « *Transparence de l'information financière et décision d'investissement cas des sociétés cotées à la Bourse des Valeurs de Casablanca* », thèse de doctorat en sciences de gestion, Université Nice Sophia Antipolis, 2011.

The IASB develops and issues IFRS (International Financial Reporting Standards), which are required to be used in annual reports of companies in over 140 countries.¹ The IASB conceptual framework reports that “The objective of financial statements is to provide information about an entity’s assets, liabilities, equity, income and expenses that is useful to financial statements users in assessing the prospects for future net cash inflows to the entity and in assessing management’s stewardship of the entity’s resources”.

b) Mandatory disclosure for listed companies in Algeria

According to the COSOB’s Regulation No. 2000-02 of 20-01-2000 on the information to be published by companies whose securities are listed on the Stock Exchange:²

At least thirty (30) days before the ordinary general meeting of shareholders, the issuer is required to submit to the company of stock exchange management an annual report containing the annual financial statements, the auditor(s)’ report, and other information required by the commission's instructions.

The annual financial statements include:

- the balance sheet,
- the income statement,
- the proposed allocation of results,
- the appendices to the financial statements.

The financial statements should cover the most recent financial year and are presented in comparison with those of the previous year. These financial statements are prepared in accordance with the principles of the national accounting plan (SCF) and any additional requirements set by the commission.

1.1.5.2. Voluntary disclosure

¹ <https://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/>, Consulted 3/9/2025 at 7:41 p.m.

² Règlement COSOB n° 2000-02 du 20-01-2000 relatif à l’information à publier par les sociétés dont les valeurs sont cotées en Bourse.

Voluntary disclosure, is information that firms provide beyond the requirements of mandatory disclosure, simply put, voluntary disclosure begins where regulations end. Firms can provide supplementary information without abiding by any formal, prescribed presentation format, or communication channel. Companies have the freedom of choice in terms of what exactly, to whom, and how to release these disclosures.¹

Although voluntary disclosure is information revealed in excess of mandatory disclosure, it can include disclosure recommended by an authoritative code or body.²

1.1.6. Objectives

The concept of adequate disclosure involves identifying the objectives for which the information is to be disclosed. Many accounting bodies and professional institutes all over the world have made attempts to define the objectives of financial statements and financial reporting. One of the most comprehensive statement of financial reporting objectives is given by the USA's Financial Accounting Standards Board:³

- Financial reporting should provide information that is useful to the present and potential investors, creditors and other users in making rational investment, credit, and similar decisions. The information should be comprehensible to those who have a reasonable understanding of business and economic activities.
- Financial reporting should provide information about the economic resources of an enterprise, the claims to those resources, and the effects of transactions, events and circumstances that change its resources and claims to those resources.
- Financial reporting should provide information about an enterprise's financial performance during a period.

¹ A. GHIO and R. VERONA. op.cit, p.66.

² O. HASSAN and C. MARSTON, op.cit, p.9.

³ Financial accounting standards board (FASB), “*Objectives of annual reporting by business enterprises*” report, USA, p. 19.

- Financial reporting should provide information about how an enterprise obtains and spends cash, including distributions of enterprise resources to the owners, and about other factors that may affect an enterprise's liquidity or solvency.
- Financial reporting should provide information about management has fulfilled its administrative responsibilities to the owners (shareholders) for the use of enterprise resources entrusted to it.
- Financial reporting should provide information that is useful to management and directors in making decisions in the interests of owners.

1.1.7. Disclosure quality

Disclosure quality refers to the extent to which the communicated information helps investors and creditors in making sound investment decisions and in evaluating management's responsibility in overseeing operations. to be useful, the disclosed information should meet certain qualitative characteristics such as relevance, materiality, faithful representation, comparability and verifiability and timeliness:¹

a) Relevance

Relevant information is information capable of making a difference to decisions made by investors, lenders and other creditors. Relevant information has predictive value, confirmatory value, or both. Predictive value is when the information can be used to predict future outcomes. confirmatory value is when information provides feedback about previous predictions.

b) Materiality

Information is material if omitting it or mis-stating it could influence decisions based on the information.

c) Faithful representation

Faithful information is complete, neutral and free from error.

¹ The international accounting standards board (IASB) "*The objective of financial reporting and the qualitative characteristics of useful information*" report, January, 2010.

d) Comparability

Comparable information enables investors, lenders and other creditors to identify and understand similarities in, and differences among, items.

e) Verifiability

Verifiability lends credibility to financial information.

f) Timeliness

Information is available to investors, lenders and other creditors in time to be used in their decision-making processes.

1.1.8. Importance of quality disclosure in the stock market

Disclosure in financial markets plays three roles of core importance, it protects investors, it improves corporate governance, and it ensures adequate price determination:¹

1.1.8.1. Investor Protection

Protecting investors is instrumental to the well-functioning of the market, and providing them with adequate protection increases their confidence in the market.² Because in the absence of a strong and widespread belief in market integrity, the investing public would withdraw its savings, with disastrous consequences for the entire economic system.

Adequate disclosure protects investors through three main dynamics: first, by providing them with all information about a security's risk and expected returns, the issuing entity, the attached rights, and so forth, it helps investors find the kind of investment that suits them and it minimizes the risk of making ill-informed investment decisions. Secondly, quality disclosure protects investors from being exploited from corporate insiders when trading on the stock exchange, by giving all traders equal access to information. And lastly, disclosure protects investors in the sense that it discourages opportunistic behavior on the part of managers.

1.1.8.2. Improved corporate governance

¹ L.ENRIQUES and S. GILOTTA, "Disclosure and Financial Market Regulation", European Corporate Governance Institute, April, 2014, p.8.

² J. SELIGMAN, "The Historical Need for a Mandatory Corporate Disclosure System" The Journal of Corporation Law, Vol.9,1983, pp.51-53.

The main function of disclosure in corporate governance is to permit the enforcement of key legal and ethical rules, such as managers fiduciary duties since with the absence of sufficient information, breaches of those duties would remain largely undetected.

Disclosure also may increase managerial awareness. By ensuring managers continuously collect and examine data, disclosure keeps them conscious of events they would probably not have known. That said, disclosure's beneficial role in constraining managerial opportunism is evident, in the context of market transparency, managers would find it harder to engage in fraudulent activities or insider trading.

1.1.8.3. Price accuracy enhancement

Disclosure serves the purpose of increasing price accuracy by reflecting relevant information. With adequate disclosure all information that is relevant to assess a firm's value is available, which allows for a more fine-tuned price setting for the firm's securities exchanged on the market. The main benefit of price accuracy is that it enhances liquidity and lowers volatility in the market.

1.2. Theoretical perspectives on disclosure

1.2.1. Theories behind the phenomenon of disclosure

Currently, a generally accepted theory of financial reporting or corporate disclosure does not exist. Therefore, for several decades, empirical researchers have investigated accounting disclosure practices under the framework of different theoretical perspectives.¹ The theories dominant in most of prior empirical research are the agency theory, stakeholders' theory, legitimacy theory and positive accounting theory:²

1.2.1.1. Positive accounting theory

PAT is an accounting theory which seeks to explain and predict why certain accounting standards, methods, and information disclosure formats are chosen in a company. It is based on the assumptions that managers make accounting or reporting choices that serve their own

¹ K. SCHIPPER, "Required disclosures in financial reports". *The Accounting Review*, No. 82, 2007, pp. 301-326.

² K. P. Modugu, op.cit, p.15.

interest, or to minimize contracting costs between an entity and its stakeholders, and that there is an explicit set of accounting choices to select from.

Corporate disclosure presents an excellent opportunity to apply PAT, because due to their opportunistic tendencies, managers may fail to make proper disclosure of useful information, this may lead to higher cost of capital and lower the value of shareholders investments.

1.2.1.2. Legitimacy theory

Legitimacy theory is based on the premise that there is an implied social contract between the corporation and society, and that the terms of the social contract specify the societal expectations from the corporate entity and stimulatingly determine the entities' operations, its growth, and survival. The failure of a company to meet its societal expectations create a legitimacy gap.

Depending on their circumstances, companies can choose one of three strategies to narrow said gap, new companies adopt the legitimacy establishing strategy by disclosing the fact that they comply with the terms of the social contract, entities operating in a stable environment adopt a legitimacy maintaining strategy, while entities whose growth is threatened choose a legitimacy defensive strategy, which means that the firm can choose to change its behavior to comply with the social contract or to let the public perception of the company change.

According to this theory, the type of disclosure that an entity produces is dependent on the legitimacy strategy that said entity adopts.

1.2.1.3. Stakeholders' theory

Stakeholder Theory is the doctrine that businesses should be run for the benefits of their stakeholders. A stakeholder can be defined as any group or individual who can affect or be affected by the achievement of the organization's objectives, these interest groups include employees, shareholders, and non-equity suppliers of funds, suppliers, customers, political groups, the general public as well as the physical environment.

The stakeholder's theory presents a strong justification for corporate disclosure because a part of a company's responsibility towards its stakeholders is information provision, which in the

business environment today goes far beyond just financial statements and extends to include environmental reports, corporate governance reports, and social responsibility reports.

1.2.1.4. Agency theory

In the business context, the agency relationship arises when shareholders (principal) delegate their decision-making powers on an entity to management (agent) under a contract, with the expectation that both parties work towards the objective of shareholders wealth maximization. However, information asymmetry and greed lead to management pursuing personal interest, this conflict-of-interest results in the agency problem.

Two alternative approaches to solving the agency problem and aligning the shareholders and managers goals are proposed, to establish an outcome type of contract in which the principal (shareholders) remunerates the agent (managers) on the basis of their achievements. Alternatively, the principal can invest in information systems that ensure quality disclosure that assist the principal in knowing what the agent is doing.

From a financial reporting and accounting perspective, the agency theory predicts and explains accounting practices through their use to fight agency problems, reduce information asymmetry, and promote transparency.

1.2.1.5. Institutional theory

The institutional theory examines why companies operating in the same field tend to have similar characteristics and structure, according to the institutional theory, organizations work within a social framework that dictates what is deemed as suitable or acceptable economic behavior,¹ this theory has two basic dimensions: isomorphism, which is the adaption of institutional practices. And decoupling which refers to organizational practices differing from institutionalized practices, both are important to understand voluntary disclosure practices.

1.2.2. Determinants of corporate disclosures quality

¹ C.DEEGAN, “*Financial accounting theory*”, Pub. McGraw-Hill, London, 2014.

The determinants of corporate disclosures identified in literature are based on three of the aforementioned accounting theories; stakeholder, legitimacy and institutional theory are:¹

1.2.2.1. Corporate legitimacy

a) Profitability

Profitability is one of the factors that is commonly used in literature to explain the level of corporate disclosure². According to the legitimacy theory, profitability can either have a positive or a negative effect on the level of disclosure.³ because on one hand profitable companies have positive messages to send to the public, and on the other hand loss-making companies may choose to disclose more information to their partners to justify their loss or to explain counteractive plans.

b) Company age

According to the legitimacy theory, as a company gets older, society will require more information from it. Thus, the longer a company exists on a given stock exchange, the more probable that it will practice a higher level of disclosure to avert social pressure.⁴

c) Firm size

Larger companies are expected to disclose more information, first because of the reduced cost of preparing and publishing information due to economies of scale, and secondly because they face more scrutiny from the public due to their size, and lastly, they also tend to voluntarily disclose more information to reduce conflict between management and the large number of stakeholder groups.⁵

¹ W.A.N. PRIYADARSHANIE, S.K.B. YUSOFF, & S.M.F. AZAM, “*Determinants of corporate disclosures: a conceptual model emanating from political economy theory*”. *Academy of Accounting and Financial Studies Journal*, Vol. 27, No. 1, 2023, pp. 1-15.

²K. Naser, and Y. Hassan,” *Determinants of corporate social responsibility reporting: evidence from an emerging economy*”. *Journal of Contemporary Issues in Business Research*, Vol. 2, No. 3 ,2013, pp. 56-74.

³ D. NEU and H. WARSAME and K. PEDWELL, “*Managing public impressions: environmental disclosures in annual reports*”, *Accounting, Organizations and Society*, Vol. 23, No. 3, 1998, pp.265-282.

⁴ K. Naser, and Y. Hassan, op.cit.

⁵ Ibid.

d) Media exposure

Media exposure attracts more public scrutiny; thus, media attention can have a positive influence on corporate disclosures, especially sustainability disclosure.¹

1.2.2.2. Stakeholder pressure

The expectations of various stakeholders can have an impact on the disclosure behavior of an entity, although the magnitude of this impact depends on the influence of said stakeholders², the ability of a stakeholder to influence management decisions is considered function of their control over the company's resources,³ three kinds of stakeholder powers can be recognized:

- Shareholder's power
- Creditor's power
- Lobby Groupe's power

1.2.2.3. Isomorphic influences**a) Coercive influences**

Coercive influences are the result of the pressure placed on an institution by organizations they rely on, or from the firm's legal and contractual environment. Regulations and pressures from various socioeconomic-political institutions are examples of coercive influences, and a firm may employ certain corporate disclosure practices to address them.⁴

b) Mimetic influences

Mimetic isomorphism refers to the practice of companies emulating or improving on institutional practices of other organization in same field, which applies to disclosure practices in the absence of a clear definition of regulations on disclosure.⁵, for example, firms in the

¹ B.M. LOCK, "*The impact of media coverage on voluntary disclosure*", Doctoral dissertation, Northwestern University, 2018.

² C.DEEGAN, op.cit.

³ A.A. ULLMANN, "*Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of US firms*", *Academy of Management Review*, Vol. 10, No. 3, 1985, pp. 540-557.

⁴ K. Naser, and Y. Hassan, op.cit.

⁵ C.DEEGAN, op.cit.

pharmaceuticals industry tend to have better disclosure than firms in other industries, especially in the research and development vector, as a competitive strategy.¹

c) Normative influences

Normative isomorphism is the practice of embracing a set of norms or standards generated by professional networks, In the case of corporate disclosures, it is the expectation that accountants will adhere to accounting standards and other reporting regulations.²

The determinants of disclosure quality and their measures are summarized in the table below:

¹ C.A. BOTOSAN,op.cit.

² Ibid.

Table 3: Determinants of corporate disclosure quality

Determinants		Measures
Corporate legitimacy		Profitability
		Firm size
		Media exposure/ coverage
		Company age
Stakeholder pressure		Shareholder's power
		Creditor's power
		Lobby Groupe power
Isomorphic influences	Coercive	Government shareholding
		Government contract
		Foreign Share Ownership
		Foreign business associates
		Membership of an industrial association
	Mimetic	Awards winning
		Managing director's membership in a professional body
	Normative	Subsidiary or associate of a parent
		Type of Audit firm
		Managing director's foreign experience or education

Source : Adapted from W.A.N. PRIYADARSHANIE, S.K.B. YUSOFF, & S.M.F. AZAM, op.cit.

Section Two: Financial Disclosure measurement

2.1. Major issues in corporate disclosure

2.1.1. Quantum of information

After identifying the target audience and the objectives for which the information is divulged, the next issue in financial disclosure is to determine the quantity of information to be shared in the annual report. The amount of corporate disclosure needed to operate on the stock market depends on the amount of uncertainty the decision makers operate under. The larger the stakeholder's uncertainty, the greater the amount of information that can be given to them. The basic determinant of the reported information quantity is dependent on an assessment of the informational needs relevant to shareholders. Therefore, Expectations and needs of report users are a crucial part of the environment that establish the type of information needed in financial communications. The quantity of information to be dispersed is dependent upon the following factors:¹

1. Legal requirements regarding disclosure contained in various laws and statutes,
2. Requirements of authorities in stock exchanges regarding disclosure,
3. Disclosure standards as defined by professional accounting bodies,
4. Informational needs of the users, and
5. Management's willingness to disclose adequate and relevant information.

2.1.2. Mode of disclosure

The presentation method of the disclosed information is also important, adequate disclosure demands that information be presented in a way which fosters understandability. The usefulness of the shared information is determined by the mode in which it was disclosed, however, mode of disclosure is secondary to other issues in financial reporting; such as quantity and timeliness. The choice of the method of disclosure to be used is a result of a careful

¹ N.M. BEDFORD, *Extension of Accounting Disclosure*, Prentice Hall Inc., New Jersey, 1973, p. 350.

examination of the nature of the information and its relative importance, the most common modes of disclosure are listed as follows:¹

1. The form and arrangement of the balance sheet, profit and loss account and other financial statements,
2. The terminology used in the detailed presentations and explanatory items of the financial statements,
3. Parenthetical and additional information,
4. Footnotes and appendices,
5. Supplementary clarification information,
6. Auditors' report;
7. Letters of the Chairman or president,
8. The board of directors' report,
9. Charts, diagrams, and other visual tools used to present the data.

The relevance of any financial reporting method should only be evaluated depending on its effectiveness in reaching the objectives of the financial report. The form in which the information is presented should be chosen and designed to further the understanding of the information users, and minimize the possibility of the data being misinterpreted therefore leading to misguided decision making. Investors and other stakeholders without a doubt prefer to see financial accounts and statements presented in a manner that provides the most effective basis for evaluating the future prospects of the firm, this quality is often referred to as “predictive ability”.

2.1.3. Timeliness of disclosure

The timeliness of disclosure is a major issue in corporate disclosure, for investors, the value of the data reported depends heavily on its usefulness and timeliness. The information may lose its relevance due to the delay in reporting it. Timely disclosure is therefore crucial to good

¹ S. CHANDER, *Corporate Reporting Practices in Public and Private Sectors*, Deep and Deep Publications, New Delhi, 1992, p. 16.

investor relations. A major element in timely disclosure to be considered is the responsibility of management to report relevant financial and non-financial information in an accurate and prompt manner. Relevant information as in any information that may affect the decision-making process of investors, timely financial information should be reported early enough to be used in making economic decisions without delay. The need of timeliness in financial reporting is widely recognized by legal authorities as well as market regulators and the accounting profession as a whole.¹

2.2. Disclosure measurement methods

Disclosure is a theoretical concept that is difficult to measure directly. Under the assumption that disclosure quality is what is being measured², the literature on disclosure offers a variety of potential proxies to measure disclosure, these measures can be classified into two approaches, The first approach includes proxies for disclosure that do not require inspecting the original disclosure vehicle, the second approach includes disclosure measures that entail reviewing the disclosure vehicle:³

2.2.1. Proxies for disclosure without recourse to the original disclosure vehicle

These proxies are developed without resorting to the original disclosure channel, they draw inferences about corporate disclosure from information in the firm's environment, they include, among others: disclosure surveys, the existence of American Depositary Receipts (ADR), the number of analysts following the company and the attributes of analysts' forecasts (AAF).

2.2.1.1. Disclosure surveys

This method inspects disclosure practices by analyzing the results of surveys or interviews conducted with information users like investors and financial analysts, commonly referenced examples of this method are the surveys conducted by the Financial Analysts Federation (FAF) /

¹ P.M. Madhani, op.cit, p.58.

² V. BEATTIE, B. MCINNES, and S. FEARNLEY, "A methodology for analyzing and evaluating narratives in annual reports: a comprehensive descriptive profile and metrics for disclosure quality attributes," Accounting Forum, Vol. 28, 2004, pp. 205-236.

³ O. HASSAN and C. MARSTON, op.cit.

the Association for Investment Management and Research (AIMR), and the Credit Lyonnais Securities Asia (CLSA) reports.

In short, rather than examining disclosure practices directly, this method uses instruments like questionnaires and interviews to mirror an entity's disclosure practices. This approach is considered more efficient when dealing with a large sample of companies compared to other methods like the self-constructed disclosure index. However, the quality of results obtained through these instruments depends on their design, for poorly designed questionnaires can result in misleading results about disclosure, plus the views of the investigated users can be biased.

2.2.1.2. The existence of ADR

Non-US firms listed on the US market are thought to have a higher level of disclosure, which is why ADR is used as a proxy for disclosure quality, a number of explanations can be offered for this assumption ¹: first, firms listed on the US stock exchange are subject to strict regulation by the securities exchange commission (SEC), they adhere to the US generally accepted accounting principles (GAAP), plus the litigation environment in the US is more demanding. Furthermore, cross-listing firms may face more scrutiny from investors and auditors. However, the ADR may lose its significance as a proxy for increased disclosure levels with the world converging towards uniform international accounting standards.

2.2.1.3. Attributes of analyst's forecasts (AAF), and the number of analysts following the company

Prior studies suggest that having a greater analyst following and more accurate analyst forecasts means a better information environment,² that is because greater disclosure allows analysts to create better and more accurate forecasts and market advisory. However, earnings can be manipulated to match analysts' forecasts,³ in this situation, attributes of analysts' forecasts may not be a good reflective measure of the disclosure of a firm.

¹M.H. LANG, K.V. LINS, and D. MILLER, "ADRs, analysts, and accuracy: does cross-listing in the U.S. improve a firm's information environment and increase market value?" *Journal of Accounting Research*, Vol. 41, No. 2, May, 2003, pp. 317-345.

²M.H. LANG and R.J. LUNDHOLM, *op.cit.*

³C.W. MULFORD and E.E. COMISKEY, "The Financial Numbers Game: Detecting Creative Accounting Practices," John Wiley & Sons Inc., 2002.

2.2.2. Disclosure proxies based on examining the original disclosure vehicle

In order to use one of these measures, you have to examine the original disclosure medium, such as the annual reports, companies' websites, or press releases among others. The inspection of the disclosure vehicles can be done through: content analysis, the use of a disclosure index, counting the number of disclosures, and accuracy of management forecasts among others:¹

2.2.2.1. Properties of reported earnings

In this approach, the properties of reported earnings are used to measure financial reporting quality, for example, accruals quality and discretionary accruals, changes in loan-loss provision, earnings persistence, earnings predictability, benchmark beating behavior and accounting conservatism. Firm transparency can also be measured by less evident earnings management such as better accounting standards and higher quality auditors.

Coding these variables is relatively time efficient and easy, this method is therefore better suited for larger samples. Additionally, these variables are constructed by means of economic modelling of available accounting figures rather than coding text, so both continuous and discrete variables can be constructed.

However different properties of reported earnings may capture different dimensions of quality and may be valid in different contexts.

2.2.2.2. Classification approach

The classification approach involves sorting observations into mutually exclusive groups according to the aspect of corporate disclosure being studied, the focus of the study could be broad such as a reporting regime or a disclosure policy; for example, whether the company provides the public with annual reports or not, the focus could also be narrow to a specific disclosure; such as whether a firm provides management forecasts or hosts conference calls. A categorical variable is then used to represent these groups in numerical terms, the resulted measure of disclosure could be multicategory or dichotomous.

¹ O. HASSAN and C. MARSTON, *op.cit.*

A classification approach is often applied to specific types of information such as segment information, management forecasts, conference calls, and financial statements disclosure. However, the simplicity of this approach gives it the versatility of being applied to any type of disclosure. Additionally, the data collection and coding are relatively simple which makes this method suitable for larger samples.

2.2.2.3. Content analysis

Content analysis is a research technique that allows us to make inferences from data to their context,¹ according to this technique, disclosure can be measured by category or by counting data items (words, sentences, pages). Two types of content analysis can be observed:

- The conceptual content analysis: a research tool used to determine the frequency of certain key concepts in a certain text.
- Relational content analysis: examines the relationships among concepts in a text.

Content analysis can be partial, covering only a part of the document, it can also be comprehensive or holistic, covering the entire document.²

Content analysis can either be done manually or automatically, manual content analysis is very labor intensive when it comes to data collection, which can restrict the sample size, automated content analysis on the other hand offers ease of use and economy of time, effort and money. however, when using software, one should make sure to enter all the available synonyms of the wanted keywords.

The main vice of content analysis as a technique is that the use of keywords isolated from whole sentences can lead to overestimation of frequency and therefore false results. Additionally, the wrong choice of keywords can lead to underestimation of the disclosure level.

2.2.2.4. Management forecasts

A management forecast is a type of forward-looking information, usually found in annual or interim reports. Management forecasts can be verified through actual future results; hence

¹ K. KRIPPENDORFF, “*Content Analysis: An Introduction to Its Methodology*,” pub. Sage, London, 1980, p. 21.

² V. BEATTIE, B. MCINNES, and S. FEARNLEY, op.cit.

they enable researcher to measure disclosure through variables like forecast accuracy. Management forecasts offer a unique setting to examine the effects of disclosure quality on the market's reaction to news.¹ However, management forecasts could be subject to earnings management which would affect their quality as disclosure measures.

2.2.2.5. Disclosure frequency

Disclosure frequency can be measured based on all available public disclosures by or about a firm found in selected channels, which then can be used as a proxy for the level of disclosure.²

2.2.2.6. Disclosure index as a measure of disclosure

Disclosure indices are extensive lists of selected items, which may be disclosed in reports,³ a disclosure index can be used to measure all types of disclosure, in any disclosure vehicle. Therefore, a disclosure index is a research instrument that measures the extent of information reported in a particular disclosure channel by a particular entity according to a list of preselected items. Information items included in the disclosure index can be weighed, depending on their type.

A researcher can either construct their own disclosure indices or use available disclosure indices from prior studies or professional organizations such as the Securities and Exchange Commission and Standard and Poor's Transparency and Disclosure scores among others.

Self-constructed disclosure studies generally choose smaller samples due to the labor-intensive data collection process, plus given that the number, weight, and type of information to be included in a self-constructed disclosure score is subject to the researcher's own judgment, the validity of the results is dependent on the quality of the index itself.⁴ And lastly, although the use

¹ J. NG, A.I. TUNA, and R.S. VERDI, "Management Forecast Credibility and Under-reaction to News," Financial Accounting & Reporting Section (FARS) Meeting Paper, 2008, available at <http://ssrn.com/abstract=930697>.

² M. LANG and R. LUNDHOLM, "Voluntary disclosure and equity offerings: reducing information asymmetry or hyping the stock," Contemporary Accounting Research, Vol. 17, No. 4, Winter, 2000, pp. 623-669.

³ C.L. MARSTON and P.J. SHRIVES, "The use of disclosure indices in accounting research: A review article," British Accounting Review, Vol. 23, No. 3, September 1991, pp. 195-210.

⁴ O.A.G. HASSAN, P. ROMILLY, G. GIORGIONI, and D. POWER, "The value relevance of disclosure: Evidence from the emerging capital market of Egypt," The International Journal of Accounting, Vol. 44, No. 1, 2009, pp. 79-102.

of disclosure indices is a flexible method it does not account for the inter-relationship between different items.

a) Information items included in the disclosure index

The usefulness of disclosure index as a measure of disclosure is dependent on the selection of the items to be included in the index¹, therefore the selection of said items is a task of major importance in the construction of any disclosure index. This task is further complicated by the fact that there is no generally accepted theory on report users' informational needs, nor a generally accepted model for the selection of the list of items to be included in a given disclosure index, in order to examine the quality of information in a firm's report. An item may be of great importance to a certain user group while it may have little to no importance to another.²

Some researchers choose to include in their disclosure index major disclosure items found in a general-purpose corporate report, that should serve the needs of all users.³ In some cases, information items were selected based on a careful review of other studies, annual reports of listed companies, and disclosure requirements relating to national standards. However, the adoption of a disclosure index created by another researcher is not uncommon.⁴

b) Scoring in the disclosure index

There are two main available approaches to develop a scoring system to determine the disclosure level of corporate annual reports, scoring the disclosure under the weighed disclosure index and under the unweighted disclosure index:⁵

– Scoring the disclosure under the weighted disclosure index

¹ C.L. MARSTON and P.J. SHRIVES, "The Use of Disclosure Indices in Accounting Research: A Review Article," *British Accounting Review*, Vol. 23, 1991, pp. 195-210.

² M.A. HOSSAIN, "Disclosure Index Approach in Accounting Research: A Review of Related Issues," Department of Accounting, Rajshahi University, Bangladesh, unpublished paper, p.4. available at <https://www.academia.edu/>.

³ R.S.O. WALLACE, "Disclosure of Accounting Information in Developing Countries: A Case Study of Nigeria," Doctoral Dissertation, University of Exeter, Devon, 1987.

⁴ M.J. PARRY and R.E. GROVES, "Does Training More Accountants Raise the Standards of Accounting in Third World Countries? A Study of Bangladesh," *Research in Third World Accounting*, Vol. 1, London, 1990.

⁵ M.A. HOSSAIN, op.cit. p9.

When constructing a disclosure index, a key concern is whether some items should be weighted more heavily than others,¹ the objective of such a weighing system is to discern between more important and less important items. The difficulty lies in the fact that not only do the importance of one item vary from one user group to the other, but also from one industry to the other and even from one company to the other. Thus, assigning weights can introduce an extra layer of subjectivity to the study.²

One method to reduce the impact of subjectivity on the study, is to conduct questionnaire surveys among user groups to determine their perceived importance of each item, such as a 5-1 Likert scale. the result of the survey can later be used as reference for the weighing of items in the index.³

Under a weighted disclosure index (WDI), each company is awarded the mean score of a particular information item if disclosed and zero if not.

– **Scoring the disclosure items under the Unweighted disclosure index**

Under an unweighted disclosure index all information items are regarded of equal significance to the average user of a corporate report, the value of an information item is either 0 if not disclosed and 1 otherwise, and the extent of disclosure is represented by the total aggregate of the disclosure index. The users of this method believe that the resulting index is less biased than a weighted index.⁴

The unique advantage of an unweighted index is that it allows for analysis independent of the perception of a particular user group, rather it takes equally into consideration the informational needs of all user groups.⁵ Although some still argue that the use of a weighed or an unweighted disclosure index does not produce substantially different results.⁶

¹ J. PATTON and I. ZELENKA, “*An empirical analysis of the determinants of the extent of disclosure in annual reports of joint stock companies in the Czech Republic*,” *The European Accounting Review*, Vol. 6, No. 4, 1997, pp. 605-626.

² C.L. MARSTON and P.J. SHRIVES, *op.cit.* p.4.

³ M.A. HOSSAIN, *op.cit.* p.9.

⁴ *Ibid.*

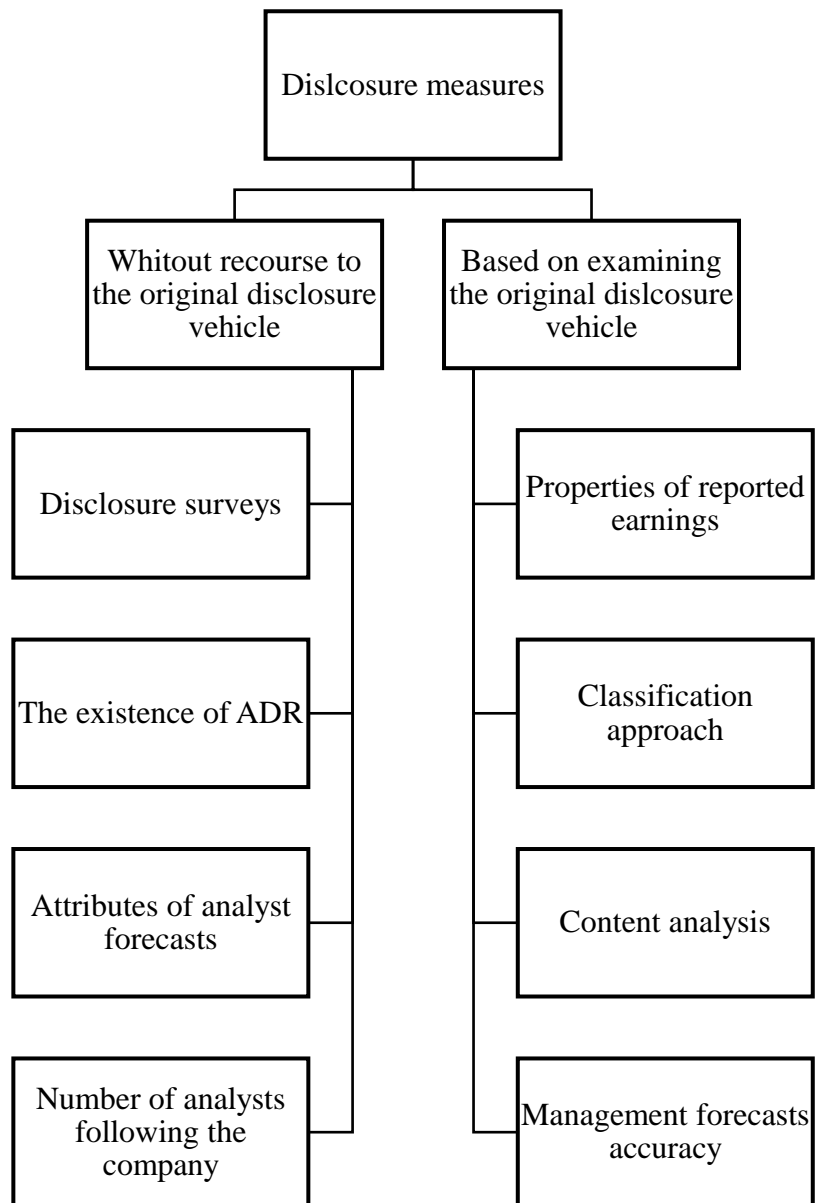
⁵ C.W. CHOW and A. WONG-BOREN, “*Voluntary Financial Disclosure by Mexican Corporations*,” *The Accounting Review*, Vol. 62, No. 3, 1987, pp. 533-541.

⁶ *Ibid.*

The inherent problem with the disclosure index approach is that not every information item is relevant to all companies. A solution for this problem is found in the modified dichotomous approach., according to this approach a firm is not penalized for the non-disclosure of an item that has no relevance to its operations.¹ For example, a company that does not have any subsidiaries is not penalized for the lack of consolidated accounts.

The different disclosure measures are summarized in the following figure:

¹ T.E. COOKE, “*An Assessment of Voluntary Disclosure in the Annual Reports of Japanese Corporations.*” *The International Journal of Accounting Education and Research*, Vol. 26, 1991, pp. 174-189.

Figure 2: Disclosure measurement methods

Source: Based on O. HASSAN and C. MARSTON, op.cit.

Conclusion

The disclosure practices of a company can be explained by a collaborative review of the legitimacy theory, agency theory, and stakeholder theory. From these theories, hail three approaches to determining disclosure quality, company legitimacy, stakeholders' pressure and isomorphic influences.

The disclosure level in a given support can be measured indirectly using surveys and analysts' forecasts for example, or it can also be measured directly using methods such as content analysis and disclosure indices. Each method of measuring disclosure has its own advantages and disadvantages, and the use of a given technique is a function of the research purpose and context. Disclosure index is a comprehensive and flexible method of measuring disclosure that must be applied carefully to avoid bias.

In the case on the Algiers stock exchange, where transparency standards are still evolving, such measurement not only supports empirical analysis but also offers practical insight for policy making, investor confidence, and the development of local markets.

Chapter Three:
Determinants of disclosure
quality among companies
listed on the ASE

Introduction

After a thorough examination of the theoretical foundation supporting our research subject, in this chapter, we will be putting some of those theoretical notions to the test on the group of companies listed on the Algiers stock exchange in the period 2018-2023, in an analysis of the determining factors of their disclosure quality.

This chapter like the two before it, will be divided into two sections, in a first sections we combine the presentation of listed companies concerned with our study with a discussion of our research methodology, in the second section we will be presenting our analysis and results.

Section One: Research methodology

In the first part of this section, we will giving a brief presentation of the companies included in the frame of the study; Alliance Assurance, Biopharm, El Aurassi, and SAIDAL. The second part will be dedicated to a discussion of our research methodology, where we start by presenting the studied sample, then describe the study period, evaluation proxy and evaluation tool. Lastly, we will dive into the statistical approach adopted to test our hypotheses.

1.1. Presentation of companies listed on the ASE

1.1.1. Presentation of ALLIANCE ASSURANCES

Alliance Assurances is a joint-stock company founded in July 2005 by Mr. Hassen Khelifati and a group of national investors recognized in their respective fields, with a share capital of 500 million DZD.¹

Between 2006 and 2009, the company experienced a notable growth in its activities, with a network expansion, launch of new products, and the development of a high-performing team. As a result, the company's share capital was increased to 800 million DZD in late 2009.

The year 2010 was a pivotal one for Alliance Assurances; the company increased its capital through a subscription offer. The offer represented 31% of its share capital, amounting to 1.44 billion Algerian dinars distributed over 1,804,511 shares. The public offering was carried out following the regulatory requirement to raise the minimum capital of the insurance company to 2 billion DZD.²

Meeting the listing requirements of the Algiers Stock Exchange, Alliance Assurances' shares were officially listed on March 7, 2011, with an initial share price of 830 DZD.

In 2020, the company proceeded with another capital increase, bringing its share capital to 3,529,142,460 DZD by the end of the year.

¹ https://www.sgbv.dz/?page=details_societe&id_soc=23&lang=fr , consulted on 4/13/2025 at 2:55.

² Ibid.

As of December 2023, the company had been in operation for 19 years, with 350 commercial branches, 442 employees, and 1,238,373 clients. It recorded a turnover of 5,851 billion DZD and a net profit of 439.9 million DZD.¹

1.1.2. Presentation of BIOPHARM

BIOPHARM is an industrial and commercial group that invested in the pharmaceutical sector in the early 1990. Currently BIOPHARM has several production units fully in line with international standards, as well as a distribution network that covers the entire Algerian soil, serving wholesalers and pharmacies.² Today BIOPHARM controls several subsidiaries as listed below:³

BIORMONE: Pharmaceutical production,

BIOPHARM DISTRIBUTION SPA: Distribution of pharmaceutical products,

BIOPURE SPA: Wholesale distribution and marketing of pharmaceutical products,

IMPISA: Distribution of pharmaceutical products to pharmacies,

BIOPHARM LOGISTIC SPA: Logistics managements for the pharmaceutical industry,

HUMAN HEALTH INFORMATION SPA: Promotion of pharmaceutical products,

PROFAM SPA: Wholesale distribution of medicines.

In 2013, The BIOPHARM Group began the process of diversifying its shareholding. The first step in this process involved reorganizing its activities around specific business units, as well as opening its capital to international institutional investors. The second step was the listing of BIOPHARM shares (BIO) on the Algiers Stock Exchange on April 20, 2016.

As of December 2023, the company has a share capital of DZD 5,104,357,000, divided into 25,511,875 shares with a nominal value of 200 dinars each. In the same year, the group's

¹ ALLIANCE ASSURANCES, *rapport annuel 2023*.

² BIOPHARM, *rapport annuel 2023*, p.13.

³ BIOPHARM, *notice d'information, 2016*, p.24.

revenue reached 82.9 billion dinars, and the consolidated net profit amounted to 8.473 billion dinars, with the help of 2894 employees. ¹

1.1.3. EGH EL AURASSI

El-Aurassi is a hotel management company composed of four hotel units, three of which are located in the Southeast and Southwest regions. These hotel units are the Rym in Béni-Abbés, the Mehri in Ouargla, the El-Boustère in Ménéa, and the El-Aurassi Hotel, which is the main entity, established as a hotel unit now also serving as the head office.

The El Aurassi establishment was inaugurated on May 2, 1975, and was placed under the supervision of the Ministry of Tourism and Culture. It was managed by the National Tourism and Hospitality Company (SONATOUR) until 1977, then by the Algerian Tourism and Hospitality Company (ALTOUR) until 1979, and finally by the National Office of Congresses (ONCC) until 1983.

That same year, as part of an organizational restructuring, the hotel was turned into a socialist enterprise, and the Hotel Management Company (EGH) was created. On February 12, 1991, the hotel changed its legal status to become an Economic Public Enterprise (EPE) and a Joint-Stock Company (SPA), with a share capital of 40 million dinars. Its corporate name then became SPA EGH El Aurassi.

In 1995, the hotel came under the umbrella of Holding Public Service (HPS), which became its sole shareholder. Furthermore, in line with public policy aimed at full state divestment through various legislative and regulatory texts on total or partial privatization, El Aurassi was selected in February 1998 for its stock market listing, with 20% of its capital to be offered to the public.

Also in 1995, in an effort to strengthen the hotel's financial capacity, a capital increase through the incorporation of the revaluation surplus was decided. This internal recapitalization allowed the share capital to increase from 40 million dinars to 1.5 billion dinars, through the issuance of 14,600 free shares with a nominal value of 100,000 DZD each.²

¹ BIOPHARM, *rapport annuel 2023*.

² EGH EL AURASSI, *rapport annuel de gestion 2022*.p.6.

In June 1999, EGH El Aurassi proceeded with a capital opening through a Public Offering (OPV). The offering amounted to 480 million DZD, representing 20% of the share capital.

On February 14, 2000, meeting the listing requirements set by the stock exchange's general regulations, EGH El Aurassi's shares were officially listed on the Algiers stock exchange (with an initial price of 400 DZD).

In 2016, the company's legal structure was transformed into a hotel group called "Groupe Hôtellerie Tourisme & Thermalisme," composed of fifteen (15) subsidiaries distributed across the country.¹

As of December 31, 2022, the Group's cumulative balance sheet shows total current and non-current assets and liabilities amounting to a net value of 9,596,415,894.25 DZD, in the same year the groups revenue reached more than 2 billion DZD.

1.1.4. SAIDAL

SAIDAL is the largest pharmaceutical company in Algeria. Founded in 1982 with the goal of establishing a local pharmaceutical industry capable of ensuring the availability of medicines and improving citizens' access to treatment, SAIDAL is now organized as an industrial group specializing in the development, production, and marketing of pharmaceutical products for human use.

SAIDAL is a joint-stock company with a capital of 2,500,000,000 Algerian dinars. Listed on the stock exchange since 1999, 80% of its capital is held by the state, while the remaining 20% is owned by institutional investors and individuals.

As part of its production mission, it established the El Harrach production unit in 1971 and acquired the BIOTIC and PHARMAL units in two stages (1971 and 1975). Following the restructuring of the Algerian Central Pharmacy, its production branch was turned into the National Pharmaceutical Production Company by Decree 82/161, issued in April 1982.

In 1985, the company name was changed to SAIDAL. then later in 1989, following economic reforms, SAIDAL became an Economic Public Enterprise with management

¹ https://www.sgbv.dz/?page=details_societe&id_soc=26&lang=fr , visited on 14/4/2025 at 12:08.

autonomy and was among the first national companies to be granted the status of a joint-stock company.

In February 1999, the SAIDAL Group opened its capital through a Public Offering. The offering involved 20% of the group's share capital, amounting to 500 million DZD, divided into 2 million shares.

In September 1999, having met the admission requirements set by the general stock exchange regulations, SAIDAL's shares were officially listed (with an initial price of 800 DZD).

As of 2023, SAIDAL holds the second place in the national pharmaceutical market in terms of sales volume, with a record turnover of 18.26 billion DZD.¹

1.2. Methodology

1.2.1. Description of the sample

The sample chosen for this research work consists of companies listed on the Algerian stock exchange. We chose to exclude the companies that were not listed throughout the study period between 2018 and 2023. Ultimately, the sample is composed of four companies listed on the main market of the Algiers stock exchange: Alliance Assurances, Biopharm, El Aurassi and SAIDAL.

Table 4: companies included in the sample

Company	Sector
Alliance Assurances	Insurance
Biopharm	Pharmaceutical
EGH El Aurassi	Hospitality
SAIDAL	Pharmaceutical

1.2.2. The evaluation proxy

¹ https://www.sgbv.dz/?page=details_societe&id_soc=28&lang=fr. visited 5/11/2025 at 2:20.

Among the disclosure medias presented in the second chapter of this thesis, we have chosen to examine annual reports as a proxy for the general level of disclosure provided by a firm. This choice was made for a multitude of reasons:

- According to Lang and Lundholm, the amount of voluntary information found in a firm's annual report alone can serve as a proxy for the amount of disclosure provided by a firm across all avenues.¹
- The annual report represents the most accessible form of corporate disclosure with most companies making their annual reports available on their official websites.
- The majority of previous empirical studies base their disclosure indices solely on annual reports.

1.2.3. The study period

This study pans over six years from 2018 to 2023, this choice was made with the following reasons in mind:

- The limited number of companies listed on the Algiers stock exchange.
- BIOPHARM was first listed on the Algiers stock exchange in 2016, therefore all the annual reports for the period are available for this company and most the companies included in this study.
- SAIDAL chose not to publish its annual report for 2022.
- The annual reports of EL Aurassi for 2018 and 2023 were not available.

In total, we had access to 21 annual reports as presented in the following table:

¹ M.H. LANG and R.J. LUNDHOLM, “*Cross-sectional determinants of analyst ratings of corporate disclosures*”, *Journal of Accounting Research*, Vol. 31, No. 2, 1993. pp. 246-271.

Table 5: The distribution of annual reports over the study period

Company	2018	2019	2020	2021	2022	2023	Total
Alliance Assurances	X	X	X	X	X	X	6
Biopharm	X	X	X	X	X	X	6
EL Aurassi	.	X	X	X	X	.	4
SAIDAL	X	X	X	X	.	X	5
Total							21

Source: Authors own work

1.2.4. Disclosure measure

Out of all the disclosure measured we have discussed in the previous chapter of this thesis; we have chosen the disclosure index as a measure of disclosure.

1.2.4.1. Information items

In order to measure disclosure quality in the annual reports of Algerian listed companies, we have chosen to use the evaluation grid developed by GUERZA Nada and GUETTOUCHI Nacir in 2023. Which is a list of 70 information items recommended by national and international disclosure obligations and recommendations (such as the International Accounting Standards Board (IASB), Financial Accounting Standards Board (FASB), national financial market, commercial law, and tax code), as well as previous studies. The purpose of this grid is to calculate a disclosure score by comparing the contents of the annual reports published by each company listed on the Algiers stock exchange to the list of items included in the grid.

Table 6: Distribution of items related to disclosure

Information category	Number of items	Percentage
Presentation of the company	9	12.85%
Elements about the economic situation of the company	14	20%
Elements about the financial situation of the company	20	28.57%
Elements about the development prospects and forecasts of the company	9	12.85%
Accounting standards, principles, and methods adopted	11	15.71%
Segmented information	7	10%
Total	70	100%

Source: GUERZA. N and GUETTOUCHI. N, Comparative Analysis of Financial Information Disclosure in Reports of Stock Exchange-Listed Companies: A Case Study of the Arab Maghreb Region

The full list of items will be included in the appendix No 1.

1.2.4.2. Scoring method

As discussed in the previous chapter, there are two approaches to develop a scoring system, the weighted scoring method and the unweighted scoring method, we have chosen the later method to minimize bias. Therefore, we used a dichotomous scoring method, by assigning a score of 1 if the financial information item was disclosed in the annual report, and 0 if not.

The formula for calculating the total score of a given annual report is given as follows:

$$SR_j = \sum_{i=1}^n SI$$

SR_j: the total score of report j;

n: the number of items in the index;

SI_i: score of items i if it is disclosed, otherwise 0.

Dividing the total score by the number of items in the grid gives us a disclosure index that allows for comparison of disclosure quality across multiple companies over the study period:

$$DX_j = \frac{SR_j}{N}$$

DX_j : disclosure index for report j;

N: the total number of items in the evaluation grid.

An identical approach was followed to produce partial indices that allow for comparison across the multiple information categories.

1.2.5. Statistical analysis

After calculating the disclosure indices for each report, we used the program SPSS to aid in the analysis and treatment of our data. In our research, we will be using three main statistical approaches: descriptive analysis, bivariate analysis, and multivariate analysis.

1.2.5.1. Descriptive analysis

Descriptive statistics refers to the collection, organization, summarization, and presentation of data using various graphs and displays. Descriptive statistics includes measures of the center

and dispersion of data, and generation of various graphical displays. this might involve calculating the mean, the median, and standard deviation, among others.¹

1.2.5.2. Bivariate analysis

Bivariate analysis is used in order to study, measure and explain the relationship between two variables, a series of non-parametric statistical tests was conducted in order to study the relationship between the disclosure index and each of the explanatory variables: company size, financial leverage, listing age and industry affiliation, our hypothesis testing starts at this step, to be later supplemented with a multivariate analysis. As part of the bivariate analysis, we run the following tests:

a) Spearman correlation

Spearman correlation is useful for non-normally distributed continuous data, commonly abbreviated as ρ (rho) or “ r_s ”.²The value of r is always between -1 and 1; the sign and value of r_s can be used to determine the strength and the direction of a relationship between two variables

b) The Mann-Whitney U test

The Mann-Whitney U test is used to compare differences between two independent groups when the dependent variable is either ordinal or continuous, but not normally distributed. The U statistic is calculated and then compared to the critical value from Mann-Whitney tables to determine if there is a difference in distribution between groups.³

1.2.5.3. Multivariate analysis

In this final step of our hypotheses testing, we conducted a multivariate analysis using multiple linear regression. Multiple regression considers the simultaneous effect of various

¹ OpenStax. n.d. “*Principles of Data Science*”. Rice University.
<https://openstax.org/books/principles-data-science>.

² https://journals.lww.com/anesthesia-analgesia/fulltext/2018/05000/correlation_coefficients__appropriate_use_and.50.aspx#:~:text=A%20Pearson%20correlation%20is%20a,monotonic%20relationship%20between%20%20variables. Visited on 24/4/2025 at 11.43.

³ <https://datatab.net/tutorial/mann-whitney-u-test> visited on 24/4/2025 at 2:04.

explanatory variables on the outcome variable, rather than examining them separately as in the univariate analysis; by modeling the relationship between the dependent variable and the independent or explanatory variables into an equation.

Table 7: The hypotheses to be tested

Dependent variable	Hypotheses	Independent variables	Expected effect
Quality of financial disclosure	H1	Company size	+
	H2	Financial leverage	+
	H3	Industry affiliation	+
	H4	Listing age	+

Thus, the regression model presenting our research hypotheses takes the form of the following equation, where ε is the error term:

$$DS = \beta_0 + \beta_1 SIZE + \beta_2 LEV + \beta_3 IND + \beta_4 AGE + \varepsilon$$

– **Dependent variable:**

DX: Disclosure index

– **Independent variables:**

SIZE: Company size,

LEV: Leverage,

IND: Industry affiliation,

AGE: Listing age.

Section Two: Results and discussion

In this section we will be statistically testing our research hypotheses. First, we conduct a descriptive analysis of the characteristics of the disclosure indices, second, we will be conducting a correlation analysis and comparing groups in a bivariate analysis, then for multivariate analysis, we will be running a multiple regression. lastly, we will be listing the main findings of our research.

2.1. Descriptive analysis

2.1.1. General descriptive

The characteristics of the disclosure indices are summarized in the table No 8:

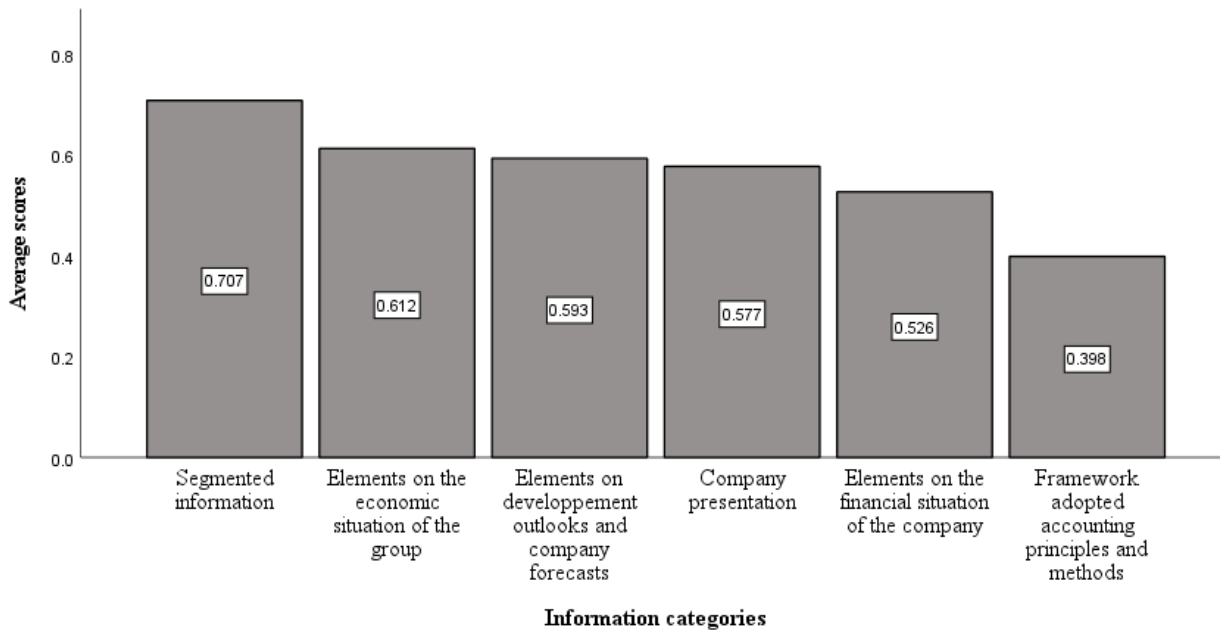
Table 8 : Summary statistics of category specific and overall disclosure indices

	Minimum	Maximum	Mean	Std. Deviation
Company presentation	0.111	0.889	0.57672	0.237318
Elements on the economic situation of the group	0.429	0.857	0.61224	0.142090
Elements on the financial situation of the company	0.250	0.700	0.52619	0.107957
Elements on development outlooks and company forecasts	0.333	0.889	0.59259	0.211792
Framework adopted accounting principles and methods	0.000	0.909	0.39827	0.413088
Segmented information	0.429	1.000	0.70748	0.165839
Disclosure quality index	0.314	0.671	0.55441	0.127579

Source: SPSS output

The recorded mean disclosure index across all observations is 0.55, with a moderate standard deviation of 0.12, this dispersion can also be observed in the maximum indices of 0.67 and 0.31 respectively. This suggests a certain level of homogeneity in the overall disclosure levels across observations, this also indicates that the more than a half of the observed reports contain the majority of the information listed in the information grid.

We have used the arithmetic mean as a tool for comparison between indices of information categories susceptible of appearing in the annual reports of Algerian listed companies, and presented them in the following pareto chart:

Figure 3 : The average disclosure index per information category

Source: SPSS output

All information categories report an average index above 0.5 except for the framework, adopted accounting principles and methods category, the category specific means range from 0.39 to 0.7. The highest index belongs to the segmented information category with a mean of 0.7, the standard deviation for this category is 0.16, attesting to a general tendency to disclose this type of information.

The least disclosed type of information on average is framework adopted accounting principles and methods, given its average index of 0.39, Although the significant gap between the maximum and the minimum index attests to the disparity in disclosure practices in this category.

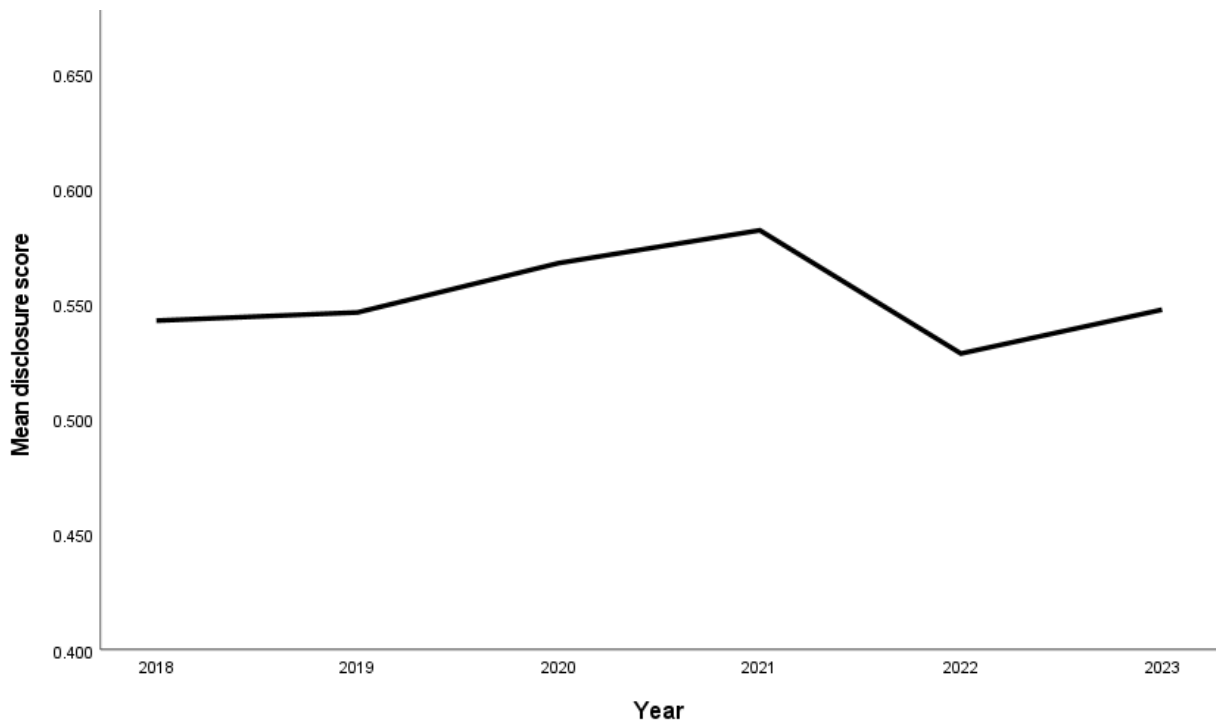
We conclude that although There is an overall consistency in the general disclosure level across observations, there is some disparity in category-specific disclosure practices among Algerian listed companies over the period of 2018 to 2023, the treatment of data per information type has allowed us to identify the most lacking information category in disclosure as the

Framework, adopted accounting principles and methods, a per company analysis will allow us to expand on areas of improvement for each company.

2.1.2. Yearly evolution

Figure No 4 illustrates the evolution of the mean disclosure index among Algerian listed companies from 2018 to 2023:

Figure 4 : Evolution of the mean disclosure index



Source: SPSS

Through this evolution graph, we can observe a relatively stable trend in the annual mean disclosure index throughout the study period, with slight fluctuations over the years: between 2018 and 2023, the mean index experiences a slight upward trend, increasing by 7.23%, this reflects a gradual improvement of disclosure quality. However, from 2021 the mean index starts to fluctuate; dropping to 0.52857 in 2022 only to go up to 0.54762 in 2023, almost the same index recorded in 2018. this suggests that listed companies in Algeria maintained a stable level of disclosure without any major improvements or decline; The absence of a clear upward trend indicates their limited progress in improving disclosure practices overtime. The company-specific yearly disclosure indices are presented in the following table:

Table 9: Disclosure indices per company between 2018-2023

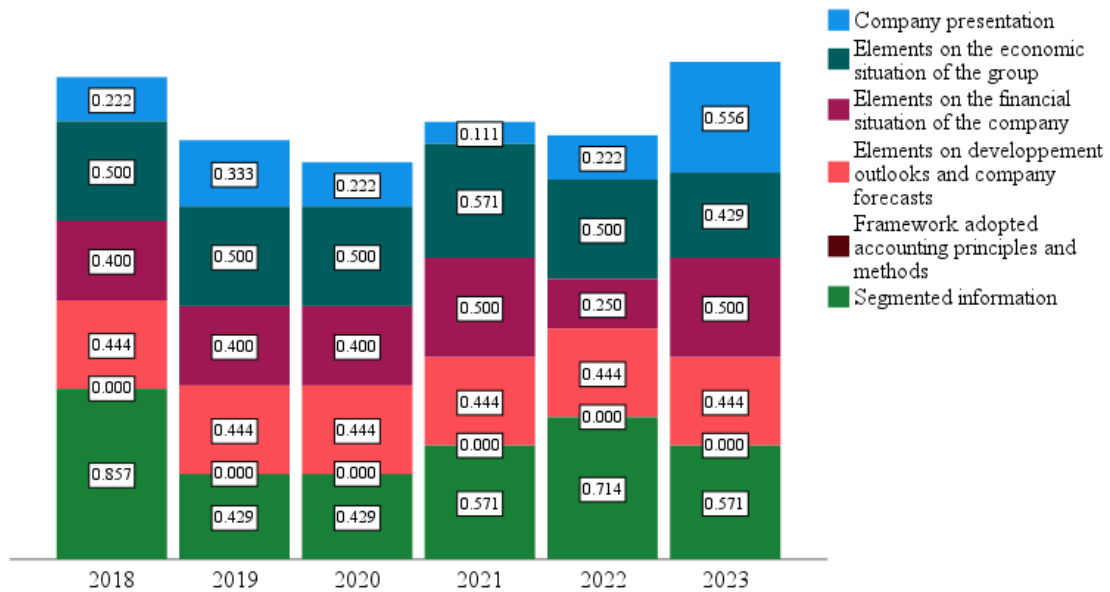
	2018	2019	2020	2021	2022	2023
Alliance Assurances	0.386	0.357	0.343	0.371	0.314	0.400
Biopharm	0.657	0.600	0.657	0.657	0.600	0.629
EL Aurassi	.	0.614	0.629	0.643	0.671	.
SAIDAL	0.586	0.614	0.643	0.657	.	0.614
Minimum	0.386	0.357	0.343	0.371	0.314	0.400
Maximum	0.657	0.614	0.657	0.657	0.671	0.629
Mean	0.54286	0.54643	0.56786	0.58211	0.52857	0.54762
Std.Deviation	0.140698	0.126370	0.150453	0.140612	0.188982	0.128041

Source: SPSS

The only companies that experience a slight but consistent increase in their disclosure index are SAIDAL and El-Aurassi, as for BIOPHARM and Alliance assurance, their disclosure index kept fluctuating throughout the study period.

2.1.2.1. The evolution of Alliance Assurances' disclosure index:

Alliance Assurance is the weakest player on the Algerian stock exchange when it comes to the quality of financial communication through annual reports, its disclosure index represents the minimum annual score throughout the entire study period, furthermore, the disclosure index for Alliance Assurance shows a downward trend throughout the first three years of our study period, as shown in figure No 5:

Figure 5 : Evolution of Alliance Assurance' disclosure index by information category

Source: SPSS output

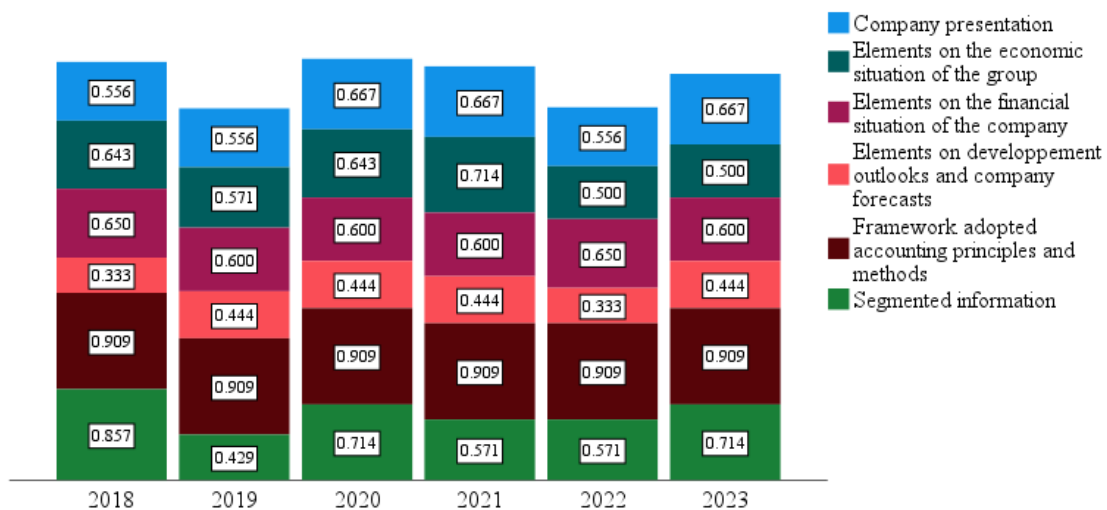
Throughout all observed annual reports, a complete absence of information about the framework, adopted accounting principles and methods is noted, the 0.029 drop in disclosure index between 2018-2019 is tied to the decrease in the segmented information category, and the 0.086 increase between 2022 and 2023 is due to the improvement in the offer of company presentation category, however compared to other companies the disclosure index in this category is still lacking. As for other information categories, the quality of communication is almost stationary.

Alliance Assurance's conservative approach when it comes to the disclosure of qualitative information highlights the need for the implementation of stricter internal or regulatory rules when it comes to these information categories.

2.1.2.2. The evolution of Biopharm's disclosure index:

Biopharm is one of the best performing companies on the Algerian stock exchange when it comes to disclosure quality, Biopharm’s disclosure index represents the maximum index for the majority of the study period and it often fluctuates between 0.657 and 0.6. The evolution of the disclosure indices for each information category can be observed in figure No 6:

Figure 6 : Evolution of Biopharm’s disclosure index by information category



Source: SPSS

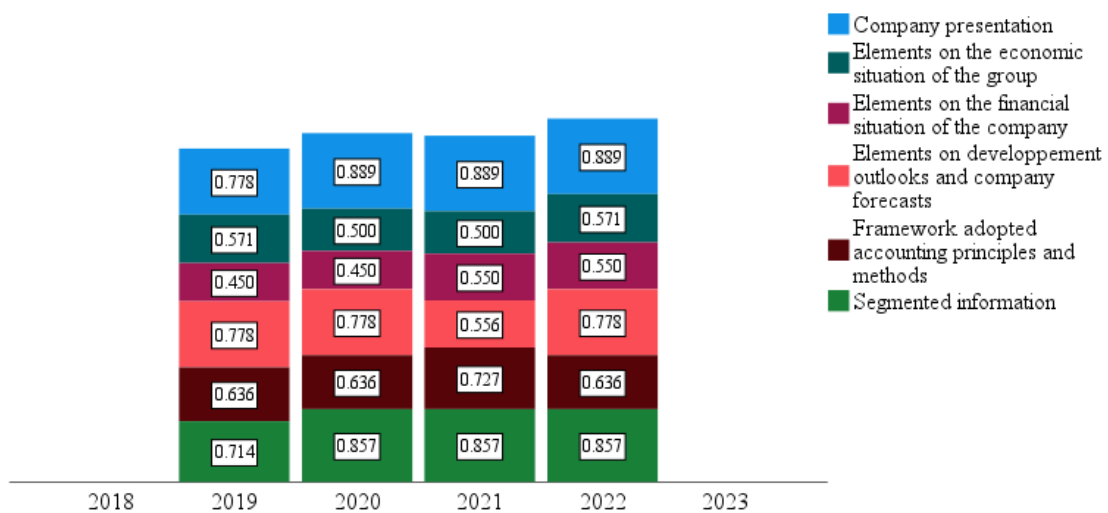
This figure illustrates that the cause of the minor fluctuation in disclosure quality index for Biopharm lies in the variations in disclosure of the segmented information category, because the rest of the information categories display rather stable indices. All information categories have a relatively high information indices except for Elements on development outlooks category, especially the framework, adopted accounting principles category that displays an index of 0.9 throughout the entire study period.

Although Biopharm displays relatively high disclosure indices, there is room for improvement in its disclosure practices specifically in the development and outlooks category especially for a company with its position in the pharmaceutical industry.

2.1.2.3. The evolution of El-Aurassi's disclosure index:

Throughout the study period, El-Aurassi has shown consistent dedication to the improvement of its disclosure quality, from 2019 to 2022 its disclosure index achieved a 9.28% increase. Furthermore, EL-Aurassi possesses the highest recorded disclosure index among other companies listed on the Algerian stock exchange in the study period with an index of 0.671 in 2022.

Figure 7 : Evolution of El-Aurassi's Index by information category



Source: SPSS

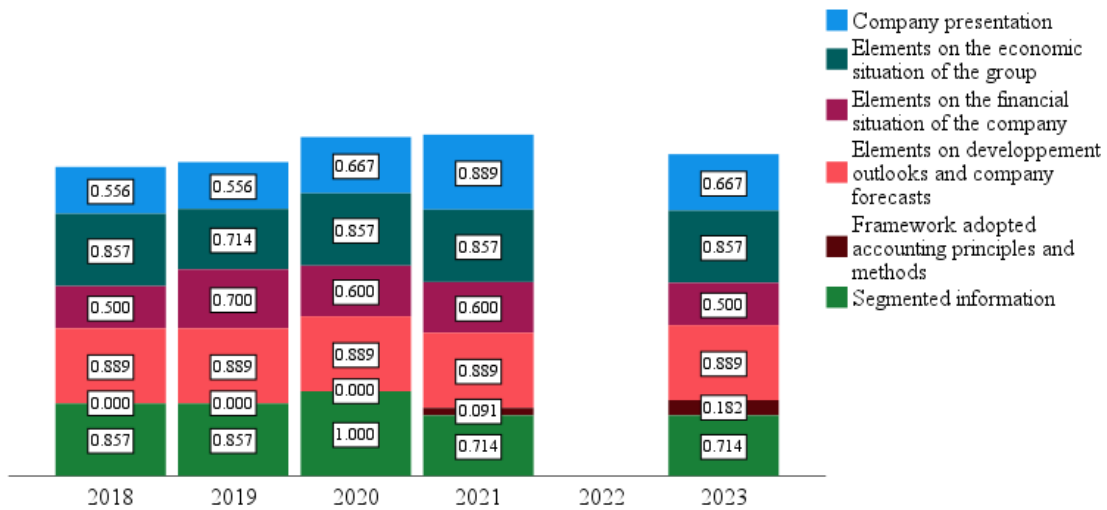
As seen in figure No 7, El-Aurassi displays relatively high disclosure indices across the different information categories, with a gradual increase in the elements on the economic and financial situation categories.

El-Aurassi can further improve the quality of its financial communication in its annual reports by including more information on the financial situation of the company, and also by divulging more information about its interactions with its environment in the economic situation category.

2.1.2.4. The evolution of SAIDAL’s disclosure index:

SAIDAL, has accomplished a consistent improvement in its disclosure practices in the majority of the study period, its disclosure index went from 0.586 in 2018 to 0.657 in 2021 with a 12.12% increase. The figure below showcases the evolution of category-specific disclosure indices for SAIDAL from 2018 to 2023:

Figure 8 : Evolution of SAIDAL’s Index by information category



Source: SPSS output

Although SAIDAL displays a relatively high disclosure indices in other categories, its communication of information on the framework, adopted accounting principles and methods was none existent until 2021. The index for this category doubled in 2023, which is promising.

This indicates that SAIDAL’s management has to focus on the information about the accounting principles and elements about the financial situation of the company in order to improve the company’s disclosure practices.

2.2. bivariate analysis

The explanatory variables and their measures for this research are presented in the table below:

Table 10: Measures of explanatory variables

Variable	Type	measure
Industry affiliation	Qualitative	takes the value of 1 if the company operates in the pharmaceutical industry and 0 if not
Leverage	Quantitative	Leverage ratio (total debt/Shareholders equity)
Listing age	Quantitative	Years since the company was first listed
Size	Quantitative	Log (total assets)

Source: Author's own work based on literature review

2.2.1. Distribution analysis

To determine the appropriate tests to be used for the correlation analysis, we first need to test the normality of each independent quantitative variable with the help of SPSS. Normality was tested using both the Kolmogorov-Smirnov and Shapiro-Wilk tests for all quantitative variables: disclosure index, company size, financial leverage, and listing age. The results are presented in the table below:

Table 11: Normality tests for the sample

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Disclosure index	0.311	21	0.000	0.751	21	0.000
Company size	0.238	21	0.003	0.848	21	0.004
Financial leverage	0.267	21	0.000	0.797	21	0.001
Listing age	0.205	21	0.021	0.880	21	0.015

Source: SPSS output

For all variables, the p-values are below 0.05 in both tests, indicating that none of the variables follow a normal distribution, therefore, we will examine the individual relationship of

the explanatory variables with the variable disclosure index using Spearman's non parametric correlation.

2.2.2. Correlation analysis for quantitative variables

We present the results for spearman's correlation for the quantitative variables: Company size, financial leverage, and listing age.

2.2.2.1. Company size

The results for spearman's correlation test indicate a positive (Spearman's $\rho = 0.296$) but non-significant relationship at the 5% level ($p = 0.096$) between the disclosure quality index and firm size, measured by the logarithm of the total assets, below is the table No 12 presenting the test results obtained from SPSS:

Table 12: Results for spearman's correlation between Disclosure index and company size

			Disclosure index	Company size
Spearman's rho	Disclosure index	Correlation Coefficient	1.000	0.296
		Sig. (1-tailed)		0.096
		N	21	21
	Company size	Correlation Coefficient	0.296	1.000
		Sig. (1-tailed)	0.096	
		N	21	24

Source: SPSS output

This positive relationship is due to the gradually increasing disclosure indices displayed by SAIDAL an El Aurassi in accordance with their growth in assets as shown in appendix No 2.

2.2.2.2. Financial Leverage

The results for spearman's rank correlation reveal a positive (Spearman's $\rho = 0.635$) and statistically significant relationship at the 5% level ($p = 0.001$) between the disclosure index and financial leverage measured by ratio between total debt and shareholders' equity, said results are presented in table No 13 as they appear in SPSS:

Table 13 : Results for spearman's correlation between Disclosure index and financial leverage

			Disclosue index	Financial leverage
Spearman's rho	Disclosue index	Correlation Coefficient	1.000	0.635
		Sig. (1-tailed)		0.001
		N	21	21
	Financial leverage	Correlation Coefficient	0.635	1.000
		Sig. (1-tailed)	0.001	
		N	21	24

Source: SPSS output

This suggests that there is a tendency for companies listed on the Algiers stock exchange with higher leverage to disclose more information, as seen in appendix No 3.

2.2.2.3. Listing Age

As for listing age, the results for spearman's correlation test revealed a positive correlation (Spearman's $\rho = 0.164$) between the disclosure index and the number of years since the company first listed, however this relationship was not statistically significant at the 5% level ($p=0.239$).

Table 14: Results for spearman's correlation between Disclosure index and listing age

			Disclosure index	Listing age
Spearman's rho	Disclosure index	Correlation Coefficient	1.000	0.164
		Sig. (1-tailed)		0.239
		N	21	21
	Listing age	Correlation Coefficient	0.164	1.000
		Sig. (1-tailed)	0.239	
		N	21	24

Source: SPSS output

This positive association can be explained by older companies on the stock exchange disclosing better information quality over time as seen in appendix No 4.

2.2.3. Comparing groups

To compare the two independent groups where the dependent variable is quantitative and the independent variable is industry affiliation, we present the results of the non-parametric test of Mann-Whitney:

Table 15: Results for the Mann-Whitney test between disclosure and industry affiliation

	Industry affiliation	N	Mean Rank	Sum of Ranks
Disclosure quality score	Non Pharmaceutical Company	10	8.20	82.00
	Pharmaceutical Company	11	13.55	149.00
	Total	21		

	DEX
Mann-Whitney U	27.000
Wilcoxon W	82.000
Z	-1.979
Asymp. Sig. (2-tailed)	.048

Source: SPSS output

The results for the Mann-Whitney test indicate that the difference in disclosure levels between the two industry groups is statistically significant ($p=0.48$). The mean rank for pharmaceutical companies (13.55) was higher than for non-pharmaceutical companies (8.20), suggesting that firms in the pharmaceutical industry listed on the Algiers stock exchange tend to disclose more financial information than those in other industries.

Thus, this indicates that industry affiliation has a significant effect on the level of financial disclosure.

2.3. Multivariate analysis

Before proceeding with a multivariate analysis, we need to verify the absence of multicollinearity between independent variables: Company size, Industry affiliation, financial leverage and listing age:

2.3.1. Verifying the absence of multicollinearity

Table presenting inter-variable correlations indicates that there is multicollinearity (correlation > 0.8) between the following variables:

- Company size and industry affiliation; given that the largest company in the sample Biopharm belongs to the pharmaceutical industry,
- Listing age and financial leverage, this may be because the longer companies are listed, the more credibility they gain with lenders.

Table 16 : Results for the intervariable correlation

		Disclosure index	Company size	Financial leverage	Listing age	Industry affiliation
Pearson Correlation	Disclosure index	1.000	.565	.543	.296	.625
	Company size	.565	1.000	-.311	-.321	.959
	Financial leverage	.543	-.311	1.000	.833	-.194
	Listing age	.296	-.321	.833	1.000	-.147
	Industry affiliation	.625	.959	-.194	-.147	1.000
Sig. (1-tailed)	Disclosure index	.	.004	.006	.097	.001
	Company size	.004	.	.085	.078	.000
	Financial leverage	.006	.085	.	.000	.200
	Listing age	.097	.078	.000	.	.263
	Industry affiliation	.001	.000	.200	.263	.
N	Disclosure index	21	21	21	21	21
	Company size	21	21	21	21	21
	Financial leverage	21	21	21	21	21
	Listing age	21	21	21	21	21
	Industry affiliation	21	21	21	21	21

Source: SPSS output

We decide to eliminate the variables listing age and industry affiliation from our predictive model.

2.3.2. Evaluating the model's fit

The goodness of fit or the quality of the predictive model can be determined by interpreting the results in the table No 17 below:

Table 17: results for the quality of the model

<i>ANOVA^a</i>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.290	2	.145	73.809	.000 ^b
	Residual	.035	18	.002		
	Total	.326	20			
a. Dependent Variable: Disclosure index						
b. Predictors: (Constant), Financial leverage, Company size						

Source: SPSS output

The ANOVA results indicate that the model is statistically significant ($p < 0.05$), As for the contribution of each bloc of variables, it can be determined from table No18 presenting the model's summary:

Table 18: ANOVA's model summary

<i>Model Summary^b</i>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.944 ^a	.891	.879	.044335	.891	73.809	2	18	.000
a. Predictors: (Constant), Financial leverage, Company size									
b. Dependent Variable: Disclosure index									

Source: SPSS output

The results indicate that the model explains around 88% of the variance in the dependent variable (Adjusted R Square = 0.879), for the independent variables presented in the table No 19 below:

Table 19: Results for the multiple regression

<i>Coefficients^a</i>											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	- 2.317	.283		- 8.178	.000					
	Company size	.268	.027	.813	9.943	.000	.565	.920	.773	.903	1.107
	Financial leverage	.223	.023	.795	9.729	.000	.543	.917	.756	.903	1.107

a. Dependent Variable: Disclosure index

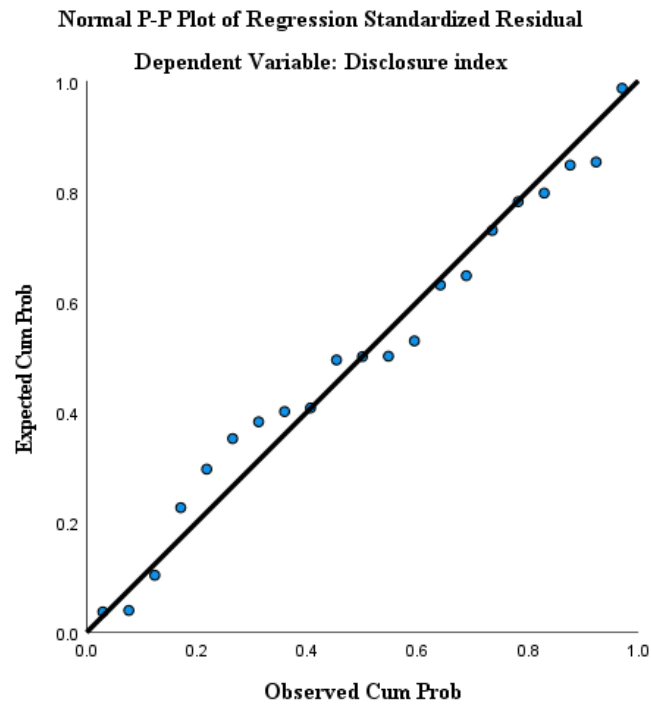
Source: SPSS output

According to the results of the multiple linear regression and with a confidence interval of 95 % as in Sig <0.05:

- A positive (Beta = 0.813) and statistically significant (Sig <0.05) relationship between company size and the disclosure index.
- A positive (Beta = 0.795) and statistically significant (Sig <0.05) relationship between financial leverage and the disclosure index.

2.3.3. Verifying the normal distribution of the error

Figure No 9 shows that the points closely followed the diagonal line, indicating that the residuals were approximately normally distributed, and thus the assumption of normality of the error has been reasonably met.

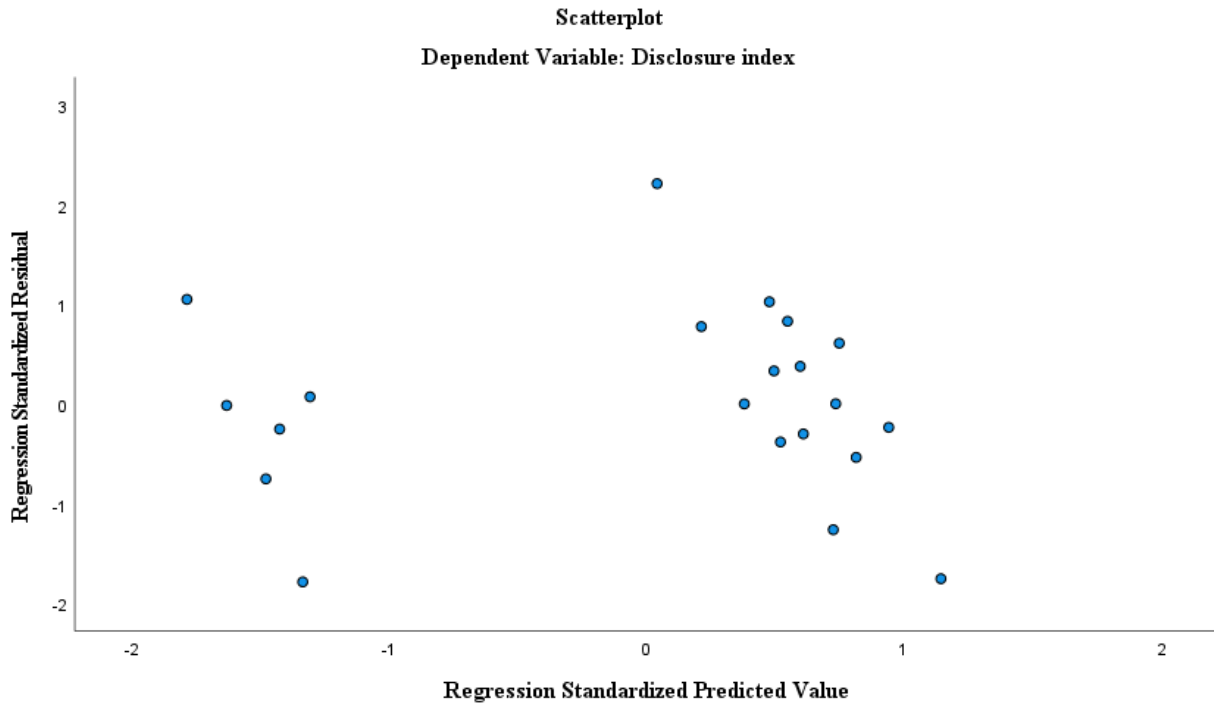
Figure 9: Regression of residuals

Source: SPSS output

2.3.3. Verifying linearity constant variance

Figure No 10 shows that the residuals are evenly and randomly dispersed around zero without any evident pattern or funnel shape, indicating that the assumptions of linearity and constant variance are reasonably met.

Figure 10: The linearity and constant variance premises



Source: SPSS output

The majority of the assumptions for multiple linear regression are verified, we can therefore assume that the regression model is valid. In table No 15 we compare the results obtained from bivariate analysis to those obtained from multivariate analysis:

Table 20 :Comparison between the results for the bivariate and multivariate analysis

Explanatory variable	Bivariate analysis	Multivariate analysis
Industry affiliation	+S	/
Company size	+NS	+S
Financial leverage	+S	+S
Listing age	+NS	/

We conclude that the results for the multivariate analysis and bivariate analysis differentiate only in levels of significance.

2.4. Synthesis of results and suggestions

2.4.1. Synthesis of results

Our analysis of the characteristics of disclosure indices, and the relationship between certain factors and disclosure quality of companies listed on the Algiers stock exchange 2018-2023 has allowed us to draw the following conclusions:

- The average annual reports of a company listed on the Algiers stock exchange contains the majority of the information items in the referenced information grid,
- The least disclosed type of financial information is the framework, adopted accounting principles and methods, followed by elements on the financial situation of the group.
- The disclosure of each information category differs from one company to another, Alliance Assurance and SAIDAL lack in disclosure of the framework, adopted accounting principles and methods category, El Aurassi displays limited disclosure of elements on the financial situation of the group, and Biopharm's reports are relatively deficient in elements on development outlooks and company forecasts.
- The existence of a positive relationship between company size, financial leverage and industry affiliation and the disclosure quality of companies listed on the Algiers stock exchange was confirmed.
- The existence of a relationship between the disclosure level and listing age could not be confirmed.

2.4.2. Suggestions

Although financial disclosure is a difficult concept to grasp, there is a variety of actions that can be done to improve the disclosure quality among companies listed on the Algiers stock exchange, both on the part of the market authorities and on the part of the part of the listed companies themselves:

2.4.2.1. Market authorities: we suggest for market authorities:

- To extend the information disclosure requirements beyond annual and semestrial financial statements to include other qualitative or non-financial information about the firms' activities,

- For policies to be put in place to assess the quality of the information notices and management reports in addition to their completeness and relevance,
- To put forward standardized formats of disclosure in line with international standards.

2.4.2.2. Listed companies: Our case study allows us to suggest for listed companies:

- To include more explanatory elements for the financial statements and the accounting principles used to prepare them,
- To include more forward-looking information both financial and development projects, for extended periods of time,
- To maintain the consistency in the order and content of their annual reports to ensure comparability,
- Enhance the accessibility of their annual reports on online platforms.

Conclusion

To conclude, studying the disclosure practices of companies listed on the Algiers stock exchange has allowed us not only to identify areas of improvement in financial information policies for each listed company, but to also determine the factors that motivate the variations in their disclosure levels.

Our analysis has revealed that companies listed on the Algiers stock exchange do not disclose enough explanatory elements on their financial statements, or on their development outlooks. And although efforts to improve financial disclosure quality exist throughout the study period, they lack in consistency and volume. As for determinants of disclosure quality, we concluded that company size, financial leverage and industry affiliation have a positive effect on disclosure quality.

The small number of companies listed on the Algiers stock exchange hinders both the flow of its activities and any meaningful studies of its development, the introduction of more competition in this market will be the catalyst to an important improvement in transparency practices.

*General
Conclusion*

The purpose of this research was to examine the relationship between a number of factors and the quality of financial disclosure, in order to explain the practice of corporate disclosure among companies listed on the Algiers stock exchange.

This prompted us to explore an extensive body of literature, pertaining both to stock markets and financial disclosure. The theoretical perspectives developed around the concept of corporate disclosure have allowed us to identify the factors that may underline this activity, under the three approaches: corporate legitimacy, stakeholder's pressure and isomorphic influences. Then a case study of disclosure practices of listed companies has allowed us to operationalize these explanatory approaches into four explanatory factors: company size, industry affiliation, financial leverage and listing age, and to come up with the following results:

The Analysis of the individual relationships between disclosure quality and the explanatory variables has led us to demonstrate that the variables industry affiliation and financial leverage have a positive statistically significant influence on the quality of disclosure, however the positive relationship between the company size and listing age could not be confirmed at this stage, because the test results for these variables were not statistically significant.

According to these results, we can confirm our third hypothesis in relation to pharmaceutical companies having better quality disclosure than companies in other industries.

The multivariate analysis of the simultaneous effect of the explanatory variables on the disclosure quality allowed us to confirm that company size and financial leverage have a positive statistically significant relationship with disclosure quality. The relationship between listing age and disclosure quality could not be confirmed at this stage of analysis either.

According to these results, we can confirm our first hypothesis in relation to company size having a positive influence on disclosure quality, and our second hypothesis saying that financial leverage has a positive relationship with financial disclosure quality. Our fourth and final hypothesis that says there is a positive relationship between listing age and disclosure quality could not be confirmed.

Transparency and financial information quality have always been prevalent issues in stock markets. This study on disclosure quality, has allowed us to comprehend the disclosure practices of the companies listed on the Algiers stock exchange, and to better understand the factors that

determine and motivate such practices, these practices that can be both controlled by the market's authority and the listed companies, in service of the main information users; the shareholders.

Hence, this study can be used as a pedagogical resource for the actors on stock market to identify areas of improvement in both disclosure policies and practices, and also for future shareholders and investors to get an idea on what to expect in terms of financial information from a company listed on the Algiers stock exchange even before such information is released.

Despite its contributions, the number of companies included in this study is very small due to the limited number of companies listed on the Algiers stock exchange during the period of the study, which made getting statistically significant results challenging. In spite of this difficulty, we hope that the methodology used can still be a useful tool to future researchers in this field.

As observed in this study, financial disclosure remains a complex subject that presents a promising area of research, beyond the matters treated in this study, several other research avenues appear worth exploring:

- The effects transparency policies on disclosure practices,
- The external determinants of disclosure quality,
- Effective market incentives for better quality disclosure.

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Appendices

Appendix 1: The information grid

Code	Item	
	Company presentation	
1	Name, address, and location where the company is registered	
2	Legal form of the company	
3	General description of the company	
4	Presentation of the organizational structure of the company	
5	Presentation of key figures of the company (e.g., turnover, profits, workforce)	
6	Presentation of the main shareholders of the company	
7	Mission and objectives of the company	
8	Presentation of stock performance (changes in stock price (average, extreme), or market capitalization)	
9	Information on the company's strategies	
	Elements on the economic situation of the group	
1	Explanations on the company's competitive position in the market	
2	Presentation of the turnover	
3	Key financial data	
4	Information on the debt	
5	Presentation of the company's know-how and research and development costs	
6	Description of the company's research and development axes	
7	Information on economic, social, or political factors that have influenced performance	
8	Description of the company's financial policy in recent years	
9	Information on staff and their evolution during the year	
10	Information on the names and responsibilities of key executives	
11	Information on social relations	
12	Information on employee benefits	
13	Presentation of actions for environmental protection and their impacts, energy management	
14	Tables of environmental objectives	
	Elements on the financial situation of the company	
1	Presentation of complete financial statements	
2	Presentation of consolidated financial statements	
3	Detailed presentation of the composition and movements of fixed assets	
4	Information on financial investments during the year	
5	Information on tangible and intangible investments made during the year	
6	Information on changes in equity	
7	Discussion of future actions to be created by subscription rights or conversion of bonds or by changing the number of shares	
8	Information on financial debt	

9	Presentation of information on the amount of dividends	
10	Information on cash flows	
11	Presentation of net cash flows generated by operating, investing, and financing activities	
12	Evolution of financial results	
13	Total assets of the company	
14	Analysis of changes in major items of the balance sheet and income statement	
15	Breakdown of sales by geographical market	
16	Description of the main financial risks to which the company is exposed	
17	Information on public grants and subsidies presented in the balance sheet or income statement	
18	Information on borrowing costs (accounting method used or total amount)	
19	Information on taxes	
20	Opinion of the auditors on the report of the chairman of the board of directors and the accounts.	
	Elements on development outlooks and company forecasts	
1	The company's future development strategy is clearly presented	
2	The company's future investment plans	
3	Ongoing development projects and their status updates	
4	Presentation of forecasts related to research and development	
5	Innovations and R&D	
6	Development projects	
7	Sales or growth forecasts	
8	Financial forecasts	
9	Upcoming events	
	Framework, adopted accounting principles and methods	
1	Indication of national or international framework	
2	Presentation of accounting principles applied in the preparation of financial statements	
3	Presentation of changes in accounting principles and their impact on financial statements	
4	Description of consolidation methods used for subsidiaries and investments	
5	Presentation of provisioning policies	
6	Description of methods for valuing assets and liabilities	
7	Description of accounting policies regarding the recognition of tangible and intangible assets	
8	Description of accounting policies regarding the recognition of revenue, expenses, provisions, and deferred taxes	
9	Description of policies related to foreign currency translation	
10	Disclosure of methods for calculating depreciation and impairment of assets	
11	Description of accounting policies regarding treatment of inventory	
	Segmented information	

1	Information segmented by business sector (revenue or products...)	
2	Information segmented by geographic areas (revenue or operating income...)	
3	Information about business segments	
4	Information about sales, profits, and assets for each operating segment	
5	Performance analysis by geographic sector	
6	Description of products and services offered by each business segment	
7	Information about risks and opportunities for each business segment	

Source: GUERZA. N and GUETTOUCHI. N, Comparative Analysis of Financial Information Disclosure in Reports of Stock Exchange-Listed Companies: A Case Study of the Arab Maghreb Region Journal of Contemporary Business and Economic Studies Vol. (06) No. (02) (2023).

Appendix 2: Yearly evolution of company size

Company	Variable	2018	2019	2020	2021	2022	2023
Alliance Assurance	Disclosure index	0.386	0.357	0.343	0.371	0.314	0.4
	Total assets	8450417520	9915360362	11613485720	12125548631	13380049201	13844286428
	Log (total assets)	9.927	9.996	10.065	10.084	10.126	10.141
	Disclosure index	0.657	0.6	0.657	0.657	0.6	0.629
Biopharm	Total assets	55386781343	66699749546	74336414142	79559065353	82694415793	94913762197
	Log (total assets)	10.743	10.824	10.871	10.901	10.917	10.977
	Disclosure index		0.614	0.629	0.643	0.671	
	Total assets	11362669460	11133677821	10424908233	9489963991	9596415894	9705505656
El Aurassi	Log (total assets)	10.055	10.047	10.018	9.977	9.982	9.987
	Disclosure index	0.586	0.614	0.643	0.657		0.614
	Total assets	39574343962	40434178877	40687550476	44811485633	44880800300	49318064603
	Log (total assets)	10.597	10.607	10.609	10.651	10.652	10.693
SAIDAL	Total assets						
	Log (total assets)						

Appendix 3: Yearly evolution of financial leverage

Company	Variable	2018	2019	2020	2021	2022	2023
Alliance Assurance	Disclosure index	0.386	0.357	0.343	0.371	0.314	0.4
	Total debt	0	0	0	33780862.38	19267129.52	6129370.82
	Equity	3427570433	4397281909	5096135992	5306881352	5509801982	5609277794
Biopharm	Debt/equity	0	0	0	0.006	0.003	0.001
	Disclosure index	0.657	0.6	0.657	0.657	0.6	0.629
	Total debt	223424882	3505000000	3600000000	4159675604	2795607991	7818182657
SAIDAL	Equity	33068657781	37737000000	40416000000	45293029468	49258085916	54366865566
	Debt/equity	0.007	0.093	0.089	0.092	0.057	0.144
	Disclosure index		0.614	0.629	0.643	0.671	
El Aurassi	Total debt	4267510757	4542787722	4582097734	4639353516	4572372068	4574298671
	Equity	4960025012	4853429113	4081270125	3565189575	3509395374	3967192288
	Debt/equity	0.86	0.936	1.123	1.301	1.303	1.153
El Aurassi	Disclosure index	0.586	0.614	0.643	0.657		0.614
	Total debt	10923905959	10403266268	10404842508	13825430093	14259371289	14536063679
	Equity	19796410397	21776278416	2223454787	22912568215	18965371886	21924496378
El Aurassi	Debt/equity	0.552	0.478	0.468	0.603	0.752	0.663

Appendix 2: Yearly evolution of listing age

Company	Variable	2018	2019	2020	2021	2022	2023
Alliance Assurances	Disclosure index	0.39	0.36	0.34	0.37	0.31	0.4
	Listing age	7	8	9	10	11	12
Biopharm	Disclosure index	0.66	0.6	0.66	0.66	0.6	0.63
	Listing age	2	3	4	5	6	7
SAIDAL	Disclosure index	.	0.61	0.63	0.64	0.67	.
	Listing age	19	20	21	22	23	24
El Aurassi	Disclosure index	0.59	0.61	0.64	0.66	.	0.61
	Listing age	19	20	21	22	23	24

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