REPUBLIC OF TÜRKİYE
ÇUKUROVA UNIVERSITY
SOCIAL SCIENCES INSTITUTE
DEPARTMENT OF BUSINESS ADMINISTRATION

CORPORATE SOCIAL RESPONSIBILITY IN COMPETITIVE MARKET AND THE EFFECTS ON COMPANIES PROFITABILITY

Zeinab CHEGINI

PhD THESIS

ADANA / 2024

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Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Müdürlüğüne;

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ABSTRACT

CORPORATE SOCIAL RESPONSIBILITY IN COMPETITIVE MARKET AND THE EFFECTS ON COMPANIES PROFITABILITY

Zeinab CHEGINI

Ph.D. Thesis, Department of Business Administration /Accounting
Supervisor: Asssoc. Prof. Dr. Elif Nursun DEMİRCİOĞLU
February 2024, 144 pages

In recent years, extensive research has explored the relationship between corporate social responsibility (CSR) and its impact on corporate profitability. This study focuses on companies listed on the Tehran Stock Exchange and investigates how CSR activities affect corporate profitability, while also considering the influence of market competition.

The study encompasses a total of 155 companies over the period from 2011 to 2021. The findings reveal a significant positive correlation between CSR disclosure and corporate profitability. Companies that actively engage in CSR initiatives and transparently communicate their social responsibilities tend to experience enhanced financial performance.

Moreover, the study examines the moderating role of market competition in this relationship. While market competition does not significantly moderate the relationship when profitability is measured by the Tobin's Q metric, it emerges as a moderator when profitability is assessed using the Return on Assets (ROA) metric.

In conclusion, this research contributes valuable insights into the intricate relationship between CSR and profitability within companies listed on the Tehran Stock Exchange. These findings have implications for investors, managers, and policymakers, shedding light on the potential for CSR to enhance financial performance.

Keywords: Corporate Social Responsibility (CSR), Profitability, Market Competition

ÖZET

REKABET ORTAMINDA KURUMSAL SOSYAL SORUMLULUK VE İŞLETME KARLILIĞINA ETKISI

Zeinab CHEGINI

Doktora Tezi, İşletme/Muhasebe Ana Bilim Dalı
Danışman: Doç. Dr. Elif Nursun DEMİRCİOĞLU
Şubat 2024, 144 sayfa

Son yıllarda, kurumsal sosyal sorumluluk (KSS) ile şirket karlılığı üzerindeki ilişkiyi inceleyen kapsamlı araştırmalar yapılmıştır. Bu çalışma, Tahran Borsası'nda işlem gören şirketlere odaklanmakta ve KSS faaliyetlerinin şirket karlılığı üzerindeki etkisini, aynı zamanda piyasa rekabetinin etkisini de göz önünde bulundurmaktadır.

Çalışma, 2011-2021 döneminde toplam 155 şirketi kapsamaktadır. Bulgular, KSS açıklamaları ile şirket karlılığı arasında önemli bir pozitif ilişki olduğunu ortaya koymaktadır. KSS girişimlerine aktif olarak katılan ve sosyal sorumluluklarını şeffaf bir şekilde ileten şirketlerin finansal performanslarının arttığı görülmektedir.

Ayrıca, çalışma bu ilişkide piyasa rekabetinin düzenleyici rolünü de incelemektedir. Karlılık, Tobin'in Q ölçütü ile ölçüldüğünde piyasa rekabetinin ilişkiyi önemli ölçüde düzenlemediği, ancak karlılık Return on Assets (ROA) ölçütü kullanılarak değerlendirildiğinde düzenleyici olarak ortaya çıktığı görülmektedir.

Sonuç olarak, bu araştırma, Tahran Borsası'nda işlem gören şirketler içinde KSS ile karlılık arasındaki karmaşık ilişkiye değerli bir bakış sunmaktadır. Bu bulgular, yatırımcılar, yöneticiler ve politika yapıcılar için önemli sonuçlar doğurmakta ve KSS'nin finansal performansı artırmadaki potansiyelini açıklamaktadır.

Anahtar Kelimeler: Kurumsal Sosyal Sorumluluk (KSS), Karlılık, Piyasa Rekabeti

ÖN SÖZ

I am delighted to present this thesis, which represents the culmination of years of research and dedication. Throughout this journey, I have been fortunate to receive support and encouragement from various individuals who have played significant roles in shaping this work.

First and foremost, I would like to express my heartfelt gratitude to my partner, Emir ASLAN, whose unwavering support and understanding have been invaluable to me. Your encouragement has been a constant source of motivation, and I am deeply grateful for your presence in my life.

I extend my sincere appreciation to my supervisor and my jury for their guidance, feedback, and invaluable assistance throughout the process of developing this thesis. Your expertise and insights have contributed immensely to the refinement of this research, and I am truly grateful for your time and dedication.

Lastly, I dedicate this thesis to the loving memory of my parents, whose unwavering love, encouragement, and sacrifices have been the driving force behind my academic journey. Though they are no longer with me, their spirit and wisdom continue to inspire me every day.

This thesis is a testament to the collective efforts and support of those who have contributed to its completion. I am deeply grateful to each and every individual who has been a part of this journey, and I hope that this work contributes positively to the field of study.

Zeinab CHEGINI

Adana / 2024

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CHAPTER I

INTRODUCTION

1.1. Introduction

In this chapter, the topic, scope, dimensions and data related to the research subject, is discussed. Also, in the rest of this chapter, the importance of the selected topic and the research purposes are stated in the form of scientific purposes and practical purposes. In this chapter, the hypotheses of the research are stated. In addition to the mentioned cases, the first chapter introduces the research variables. The explanation of the general structure of the different chapters of the thesis is the last part of this chapter, and at the end, the summary of the chapter is presented.

1.2. Research Subject and its Reason

In the realm of product market competition, companies find themselves torn between two competing needs: the pursuit of rivals' insights and the safeguarding of their own information for a competitive edge. As suggested by Lee (2010), this competitive environment prompts companies to enhance the quality of their disclosed information. This not only breeds reliance on external advantages but also incentivizes owners to fortify internal governance structures, curbing opportunistic behaviors among managerial figures.

Yet, the impact of market competition on managers' inclinations towards manipulation and earning management remains debatable. Simultaneously, some argue that competition within the product market serves as an alternate means of managing and disciplining managers. (Lee et al., 2018)

Schleifer (1986) and Aghion et al. (1999) point out that incompetent managers in competitive industries are more likely to be fired when the firm's performance metrics are revealed. Phillips (1995) and Giroud and Mueller (2011) have pointed out that competition leads to a reduction in managerial dismissal, which in turn increases managerial effort, company productivity and the performance of leading companies.

The financial statements reflect the results of the managers' duties or their accountability to the resources available to them. Income statement is important for users of financial information because of the useful information it provides about the

profitability of companies. Therefore, any misleading presentation about the financial performance of companies can have detrimental effects on investors and make it difficult for them to make appropriate economic decisions. (Lee et al., 2018)

The problem that can be seen today, despite the increasing level of awareness and general knowledge of users of financial statements, is the importance of accounting reporting figures, especially accounting profits, as one of the main criteria for evaluating performance in making investment decisions. This irrational reliance creates many incentives for managers to manipulate (manage) these numbers to their advantage.

As profit management presents a false picture of the company's performance results, causes incorrect judgments of shareholders and investors about the performance of companies and their managers, and not only leads to a loss of their capital, but also creates a kind of pessimism among shareholders and destroys healthy competition between companies.

On the other hand, it causes these affected investors to switch their investments from the infrastructure sector of the economy (stock exchange) to the non-productive sectors (including brokerage, etc.), which in practice, corrupts the country's economy and eventually the general public suffers from this process.

The main reason for profit management is the separation of ownership from management. This distinction increases the likelihood of managers' opportunistic behaviors, and earnings management is an example of these behaviors. Most researchers have found that earnings management is motivated by misleading users of financial statements or by deviating from contract results that depend on accounting earnings.

Schliefer (2004) argues that competitive pressures on product markets increase the likelihood of companies manipulating profits. He argues that when there is competition in the market, managers are under pressure to manipulate profits to influence actual and potential investors by influencing stock prices and reporting high profits. On the other hand, according to stakeholder theory, there is a social contract between the community and the company. Stakeholder theory states that in addition to shareholders, the company must strive to meet the needs of all users (Freeman & Reed, 1983).

There are several different perspectives on the relationship between corporate social responsibility and financial performance. The first view is that there is a relationship between companies' quantity costs and their quality costs, such as production quality or security costs. Companies' efforts to bear lower quality costs through social activities lead to slightly higher quantity costs. (Liu & Wen Qu, 2018)

Moreover, the link between a company's social performance and its financial standing is often explored through the "community effect hypothesis." This hypothesis posits that fulfilling the comprehensive needs of stakeholders beyond shareholders can yield positive financial outcomes. Another perspective suggests that financially successful companies, requiring fewer resources for achieving high financial performance, allocate more resources toward social endeavors (Oikonomou et al., 2012).

A third viewpoint asserts that companies embracing greater social responsibility tend to mitigate risks linked to adverse events. They are less prone to heavy fines due to environmental issues, evade costly lawsuits, and engage sparingly in detrimental social activities that could tarnish their reputation. Consequently, this positively influences corporate financial performance. (Ararat, 2016).

Hence, the research endeavors to address the pivotal query: What role does product market competition play in shaping the correlation between corporate social responsibility and profitability?

1.3. The Importance of Research

Since the early 1990s, companies have faced increasing pressures to acknowledge and take responsibility for their societal impact. This heightened awareness prompted businesses to embrace social responsibility. Simultaneously, growing public concern about social and environmental issues influenced companies to align their products with these concerns. Such initiatives are referred to as benevolent marketing, influencing not only consumer attitudes towards companies but also impacting managerial performance (Boubakri et al., 2018).

Corporate leaders face dynamic and challenging tasks in social ethics standards with the goal of conducting responsible business operations. Today, corporate social responsibility is considered an integral part of the world economic financial books and articles, and the tendency to invest in companies that have corporate social responsibility practices and reporting is increasing (Lamandi, 2017). While the term corporate social responsibility seems relatively new, a review of the literature shows that the concept has evolved over the decades, in line with social, political and business developments.

The issue of corporate social responsibility has brought challenges to various international, national and regional organizations in the process of setting standards for reporting non-financial information, and related disclosures have been a research

paradigm in recent years. Also, research on explaining the relationship between corporate social performance and corporate financial performance from the perspective of political economy in the age of globalization with the approach of theories has been very important. However, examining other dimensions of social responsibility reporting, including its role in promoting the competitiveness of companies, can also be very important in line with the literature and the foundations of previous theory (Barnea and Rubin, 2010).

Another point is that in a competitive market, companies must use the methods of production that have the lowest cost and highest efficiency in order to help the consumer in obtaining better quality goods and lower prices. In this case, the resources of the whole economy are used in a more efficient way and it makes the whole economy benefit (Jia,2019). It is essential to recognize that notions like competitive or monopoly markets are relative in nature. When categorizing market types based on the level of competition, it becomes apparent that market types exist along a spectrum. At one extreme lies a fully competitive market, while at the opposite end, there is a complete monopoly. In emerging economies like the Iranian economy, markets and industries operating within the stock market exhibit a tendency toward a spectrum of competitive markets (Khodadadi & Aghajari, 2009).

Therefore, determining the relationship between competitive product structures and social responsibility activities is an important issue. Under normal circumstances, competition in the market will include competition to prevent new competitors from entering the industry and competition between companies operating in an industry. In the first case, companies work together to prevent new competitors from entering the industry, while in the second type, companies in a particular industry will compete with each other. However, companies can take social responsibility activities to reduce competitive threats (Giroud & Mueller, 2011). Also, maximizing a company's value necessitates the execution of profitable projects. In the current landscape of fiercely competitive market conditions, identifying the right financing method becomes crucial for enhancing profitability and ensuring the survival of companies (Ararat, 2016).

1.4. The Purpose of the Research

What distinguishes companies in today's world from decades ago is the unstable environment and increasing competition for limited resources. According to recent

studies, the company's financing decisions are influenced by both internal factors and the activities of groups outside the company (Ahmad & Samajpati, 2010). Therefore, paying attention to the competitive market in determining the appropriate financing method to increase the efficiency and survival of companies is important and is one of the main factors for their growth and development (Torsian, 2009); Therefore, in order to choose the best combination of capital, company managers need to pay attention to competitiveness as a means to achieve the desired performance when making financial decisions (Khodadadi & Aghajari, 2009).

Within the competitive literature, it's argued that heightened competition within product markets serves as a driving force for managers to operate more efficiently (Allen and Gale, 2000). Cuez (1980) contextualizes this by suggesting that competition prompts managers to engage more extensively with stakeholders, ultimately enhancing efficiency. Broadly, competition in product markets is seen as an external governance mechanism, significantly influencing companies' decisions regarding information disclosure and additionally, it's considered a pivotal factor affecting companies' stock value (Abdouh & Verla, 2017). Many studies have examined the characteristics of the product market, the fluctuations of macroeconomic variables and the factors affecting the work environment; but less has been done about the determinants at the industry level and especially the competition in the product market (Simonedes, 2017).

Market competition in financial research is defined as the market power of companies. Market power is the company's control over the price and level of production (Sarlak & Mirzaei, 2016). In this regard, one of the important factors to ensure the confidence of investors and creditors to optimally allocate capital and carry out profitable activities, is to provide information that is useful in making financial and economic decisions. In fact, in order to create an efficient capital market, it is necessary to have mechanisms to provide quality and accurate information (Rice, 2003).

Analyzing the correlation between product market competition and corporate social responsibility sheds light on management's incentives to engage in CSR (Corporate Social Responsibility) initiatives. Prior research has explored the link between corporate governance and CSR, revealing a positive association. These studies suggest that CSR activities contribute to diminishing conflicts of interest between managers and shareholders (Farrell et al., 2016).

On the other hand, low expectations from the company's future social responsibility activities will lead to lower value of the company's securities, in other

words, reduce bargaining power and competitiveness among other companies (Symeonidis, 2017). In other words, the company's weak social responsibility activities keep the capital market expectations of the company's securities low, and this makes the value of the securities market less than their real value, and this will lead to a decrease in the company's competitiveness over time. This is because market analysts and investors need to consider the company's social responsibility activities to some extent. In fact, companies, knowing the benefits and costs of adopting corporate social responsibility activities, must determine their appropriate approach. (Fishman et al., 2005).

The purpose of research can be delineated into two distinct categories: scientific purposes and practical purposes.

1.4.1. Scientific Purposes

Investigating the relationship between corporate social responsibility and profitability.

Investigating the role of product market competition on the relationship between corporate social responsibility and profitability.

1.4.2. Practical Purposes

The results of this research can be used by external users (including investors and financial analysts, companies and capital markets to make sensible investment decisions); and Internal users (including managers to make appropriate economic decisions and pricing decisions). It is also expected that the results of this research can have the following scientific achievement and value added. First, the results of this study can expand the theoretical foundations of previous research on the impact of product market competition on the relationship between corporate social responsibility and profitability of developing countries. Second, research evidence can provide a tool for rational decision-making of a wide range of users.

1.5. Research Questions and Hypotheses

These research questions are formulated to delve into the connections and interactions postulated in the hypotheses. The following are the research inquiries pertinent to this study:

What is the relationship between corporate social responsibility and profitability?

What effect does product market competition have on the relationship between corporate social responsibility and profitability?

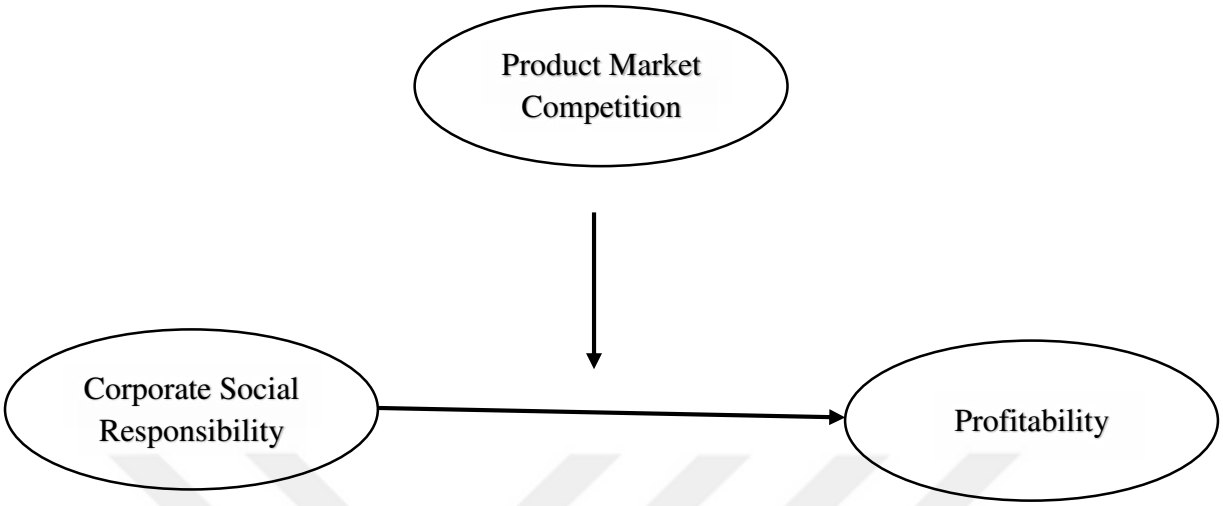

Figure 1. Conceptual model of research

The hypotheses developed in line with the aim of the study are as follows:

First hypothesis:

H0: There is no significant relationship between corporate social responsibility and profitability.

H1: There is a significant relationship between corporate social responsibility and profitability, and product market competition moderates this relationship.

Second hypothesis:

H0: Product market competition does not moderate the relationship between corporate social responsibility and profitability.

H1: Product market competition moderates the relationship between corporate social responsibility and profitability.

1.6. Conceptual Definition of Research Variables

In the subsequent section, a conceptual delineation of the research variables is provided.

1.6.1. Corporate Social Responsibility (CSR)

Corporate social responsibility (CSR) refers to aligning an organization's actions with its values, ensuring that the concerns of various stakeholders such as shareholders, customers, employees, investors, and the wider public are integrated into the company's policies and operations (Waddock & Graves, 1997). Essentially, it entails perceiving the organization as an integral part of society, fostering a sense of responsibility toward the community, and actively pursuing initiatives to enhance societal well-being, irrespective of the company's immediate interests (Javed et al., 2016).

1.6.2. Product Market Competition

The environment which the companies operate in is a growing competitive environment, and the companies have to compete with several factors at the national and international levels and expand their activities through new investments to continue their success (Etemadi & Montazeri, 2012).

1.6.3. Profitability

Accounting profit stands as the conventional performance measure, wielding significant importance for investors, shareholders, managers, creditors, and financial analysts (Famiyeh, 2017). Its widespread usage among users of financial data stems from the ease of obtaining requisite information and conducting associated calculations. Research conducted in this domain indicates that accounting profit and the insights derived from it offer valuable information, greatly influencing the decision-making process of accounting information users (Pandey, 2004).

1.7. The Overall Structure of the Research

Chapter 1: In this chapter, in addition to the introduction of the research subject, the importance and necessity of the subject, research purposes, research questions, research hypotheses, and the concepts of key words are described. The next chapters of the research will be as follows:

The second chapter: In this chapter, while reviewing the literature on the subject of the research and expressing the theoretical concepts in the desired framework, a brief description of the foreign and domestic researches that are somehow related to the

research topic is presented.

The third chapter: In this chapter, it is mentioned about the research method and the models used in testing the hypotheses, as well as the main methods of data collection, the selection of the samples, and the analysis and calculations performed.

The fourth chapter: In this chapter, it is pointed out how to classify information and analyze them through the use of statistical methods and models, and the results of hypothesis testing are presented.

The fifth chapter: In this chapter, which is actually the final part of the research, the final summary of the obtained results is presented and in fact the result of the hypotheses (rejection or proof) is determined. Also, the limitations and future suggestions of the research are briefly described in this chapter.

At the end, the list of important Persian and Latin sources and sources from books, publications and articles along with appendices related to the research including basic data and tables and statistical analyzes are given.

CHAPTER II

CORPORATE SOCIAL RESPONSIBILITY, PRODUCT MARKET COMPETITION AND PROFITABILITY (LITERATURE REVIEW)

2.1. Introduction

According to the principles of scientific research, it is necessary to review the research literature in this chapter. Therefore, according to the main goal, which is the empirical analysis of the impact of variables on each other, key words will be specified and defined, and for each section, an overview of the relevant theoretical foundations will be presented.

In other words, due to the importance of examining the theoretical foundations and related backgrounds, this chapter is dedicated to reviewing the theoretical foundations and results of previous studies that seem related to the subjects of this research. After this introduction, first about the social responsibility of the company and then about the competition in the product market and profitability (financial performance) will be presented. Also, some examples of foreign and domestic researches related to the subject of the current research are presented or a summary of the contents will be mentioned.

2.2. First part: Corporate Social Responsibility (CSR)

Social responsibility embodies the obligation of private institutions to operate without adversely impacting the societal environment in which they function. Although the precise scope of this obligation remains somewhat ambiguous, it commonly encompasses responsibilities such as refraining from polluting, avoiding discriminatory practices in employment, abstaining from unethical activities, and providing consumers with accurate information regarding product quality. Moreover, it signifies a commitment to actively engage and contribute positively to the well-being of individuals within the broader society (Sheikh, 2019).

In this regard, Robinson states: "Social responsibility is one of the duties and obligations of the organization aligned with benefiting the society in such a way that the primary goal of the organization, which is to maximize profit, gives a sublime appearance" (Robinson, 2018, p.50).

Keith Davis believes that: "Social responsibility is a kind of sense of obligation by the managers of private sector business organizations to make decisions in such a way that,

in addition to earning profit for the organization, the welfare level of the whole society will also improve" (Davis, 1976, p.16).

Ultimately, social responsibility signifies that organizations, given their significant influence on the social framework, must conduct their operations in a manner that avoids detriment to society. Should any harm occur, these organizations are obligated to provide appropriate redress (Chen & Bouvain, 2009). Essentially, organizations are expected to function as integral components within the broader social system, acknowledging their role as subsystems within the larger societal framework (Ioannou & Serafeim, 2015).

It's important to differentiate between management ethics, social accountability, and social commitment in comparison to social responsibility. Andersen (2004), in his book, distinguishes these concepts as:

Management ethics and social responsibility involve adhering to societal values, norms, and moral principles to achieve organizational objectives. Social responsibility pertains to broader organizational concerns, while ethics relates to the individual conduct of managers and employees. When an organization fulfills its legal and economic duties without exceeding them, it meets its social obligation, essentially fulfilling the minimum requirements mandated by law (Davidson & Worrell, 1992). Social responsibility encompasses a moral framework guiding organizations to engage in activities that benefit society while avoiding actions detrimental to it. Social accountability denotes an organization's capability to respond to society's demands and expectations. In essence, social responsibility serves as the foundation for social accountability, implying that managers must acknowledge their social responsibility before taking action (McWilliamset al., 2011).

Figure 2..The Evolution of Social Participation

Source: (McWilliamset al., 2011)

Table 1.

Comparing Social Responsibility with Social Accountability

Indicators	Social responsibility	Social accountability
Interests	Ethical standards	Practical programs
Focus on	Objectives and results	Tools and facilities
Emphasis on	Commitment	Response and reaction
The framework of decisions	Long time	Short and medium term

Source: (Islam M. A. & Deegan C., 2008)

In broad terms, social responsibility entails decision-makers committing to actions that not only secure their interests but also enhance societal well-being. This commitment encapsulates several key elements (Mattila, 2017): First, it represents an obligation that institutions must be answerable for. Secondly, institutions bear the responsibility of avoiding activities detrimental to society, such as pollution, employment discrimination, or producing harmful products. Moreover, organizations should actively contribute to enhancing social welfare by allocating financial resources, supporting cultural institutions, and improving overall quality of life. Ultimately, social responsibility dictates that organizations must conduct themselves in a manner that doesn't harm society, and if harm occurs, they are obliged to rectify it. Essentially, organizations should function as integral parts of the larger system they inhabit (Bechti et al., 2020).

Andrew Stark, a renowned professor specializing in business ethics and management, shares his perspective, stating that many business ethicists tend to confine themselves to a narrow ethical domain, disconnecting from the real-world challenges most managers face. He criticizes the absolutist stance of some ethicists who view profit as inherently unethical and advocate for commercial enterprises to self-inflict harm to validate their legitimacy. Stark suggests a more pragmatic approach, emphasizing the importance of honestly selling a quality product at a reasonable profit. According to him, it is crucial for managers to discern what is morally and socially correct and execute it without jeopardizing the functionality and integrity of the workplace and the organization. In essence, Stark advocates for a balanced approach that aligns ethical considerations with practical business realities (Korschun, 2013).

The "Business for Social Responsibility" association offers a perspective on the

definition of social responsibilities, acknowledging the absence of a comprehensive definition for organizational social responsibility. According to them, social responsibility involves making business decisions based on moral principles, adherence to legal frameworks, and respect for both people and the broader society and environment. The association further refines the definition by emphasizing that corporate social responsibility entails companies performing in a manner that aligns with the general, moral, and legal expectations society holds for business (Zhou et al. 2023). The managers' articulation of corporate social responsibility should extend beyond mere adherence to a set of rules, occasional gestures, or market-driven and marketing-oriented measures. Instead, it should be perceived as a holistic collection of measures, functions, and programs integrated into business activities and the decision-making processes of senior management. This underscores the idea that social responsibility is an integral and ongoing aspect of corporate conduct rather than a sporadic or superficial endeavor driven solely by commercial interests. (Chen et al, 2021).

Social responsibility can be defined as the alignment of an organization with moral values, transparency in actions, positive employee relations, adherence to legal requirements, and a commitment to respecting the society in which it operates. It transcends occasional acts of service to society, evolving into a comprehensive organizational philosophy that influences strategic decisions, the selection of business partners, the adoption of specific practices, and ultimately, the development of the organization's brand name. This perspective emphasizes that social responsibility is not merely a set of charitable actions but a strategic and integral aspect of the organizational approach, influencing various aspects of decision-making and shaping the overall identity of the organization. (Ararat, 2016).

2.2.1. History of Corporate Social Responsibility

The history of Corporate Social Responsibility (CSR) dates back to the early 20th century, evolving alongside the rise of industrialization. While the concept of businesses contributing to societal welfare isn't new, the structured notion of CSR gained momentum in the mid-20th century (Akmese et al., 2015).

The term "Corporate Social Responsibility" gained recognition in the 1950s and 1960s in response to social and environmental concerns arising from rapid industrial growth. Key figures like Howard Bowen, considered the father of CSR, began advocating

for businesses to consider their impact on society beyond mere profit-making (Murphy, 2013). Bowen's book "Social Responsibilities of the Businessman" in 1953 laid a foundation for modern CSR discussions. Throughout the latter part of the 20th century, CSR evolved further as companies increasingly recognized their role in addressing environmental issues, labor rights, community welfare, and ethical business practices. As globalization surged, CSR became a pivotal aspect of corporate strategy, emphasizing responsible business conduct and sustainability (Devinney, 2009).

In recent decades, CSR has become ingrained in the corporate landscape, with companies integrating social and environmental considerations into their operations. Today, CSR isn't merely a voluntary initiative but a crucial element of business ethics and long-term viability, shaping companies' relationships with stakeholders and society at large. (Matila, 2017). The evolution of social responsibility has often been spurred by global developments and challenges, such as globalization. Today, CSR not only commands a significant portion of literature and management practices but is also a subject of scholarly debates, professional associations, non-governmental organizations, and various stakeholders including consumers, employees, suppliers, shareholders, and investors (Behrouzi et al., 2016).

2.2.2. The Concept of Corporate Social Responsibility

Corporate social responsibility means the responsibility of the company to respond to the consequences of activities that affect society. The meaning of society here is general and includes all stakeholders of the company (Milton et al., 2014). The company should consider the interests of all stakeholders in making decisions and carrying out its activities and operations. The company's stakeholders are all the people who are affected by the results and consequences of the company's decisions and actions (Behrouzi et al., 2016). These stakeholders directly and indirectly contribute to the success of a company. The most important stakeholders of the company are consumers, employees, owners or shareholders and society (Khansari & Nilforoshan, 2019). Now the company is faced with a wide range of responsibilities beyond the market. Some of these responsibilities are largely related to society (Gholami, 2019).

The concept of corporate social responsibility encompasses various interpretations, often differing among individuals. To some, it represents a legal mandate or obligation. Others view it as ethical behavior aligned with societal norms, while some

see it as a broader sense of accountability. For many, it equates to philanthropic acts and charitable donations, while others perceive it as social consciousness (Margolis & Walsh, 2001). Enthusiasts of this concept often associate it with legitimacy and acceptability, whereas a minority view it as an elevated standard of conduct imposed on businesses and entrepreneurs, distinct from the responsibilities of ordinary citizens (Windsor, 2006).

Corporate social responsibility deals with the relationship between companies and society. Specifically, this concept examines the effects of companies' activities on individuals and society (Giyas et al., 2016). A review of the literature related to CSR shows many different meanings mentioned for this concept (Poursafar et al., 2018). These meanings include a spectrum with the meanings of altruistic and humanitarian actions and public awareness and conscience of companies to being committed to complying with ethics and law and altruistic activity that leads to the improvement of social and public welfare (Behrouzi et al., 2016).

The European Commission considers corporate social responsibility as a concept whereby companies combine social and environmental responsibility with their business activities and interactions with stakeholders on a voluntary basis (Kang & Moon, 2012). The European Commission believes that although an increasing number of companies are included in the culture of social responsibility and there is a wide range of approaches to corporate social responsibility, there is a broad agreement about its main characteristics. Corporate social responsibility is a move by commercial companies to go beyond the minimum legal requirements that are voluntarily accepted because economic institutions consider it as part of their long-term interests (Chen et al., 2019). In this way, the European Commission relates the internal function of corporate social responsibility to commercial behavior, which separates it from the humanitarian and benevolent affairs of companies and defines it in the company's own actions. Emphasis on economic benefits comes from political and biological considerations, which specifically refers to the issue of corporate social responsibility (Lii, & Lee, 2012).

A number of critics also complain that the concept of the phrase social responsibility has empowered the executive directors of the companies to determine the social obligations of the company according to their opinion and wishes. When the subject is considered from this point of view, social responsibility becomes a cover by which the organization or individual can display their personal values (Qudsi & Fani, 2017).

Another group of critics point to the financial and ethical scandals of large companies such as Enron, Parlarmat, WorldCom, etc. and say that despite the growth of

the corporate responsibility movement and the companies' claims in this regard, Scandals prove that companies and their managers only care about their profits (Lamandi, 2017). Apart from the concept of social responsibility, many people doubt the motivation of companies in their corporate responsibility programs and activities (Sadeghi et al., 2017).

Although it seems that the term corporate social responsibility is used in a relatively broad sense, some other terms have several broad and general meanings. Other terms such as corporate responsibility, corporate citizen, corporate integrity. Each of these terms is somewhat focused on a specific part of the dimensions of corporate social responsibility, some prefer corporate responsibility because the definition of social responsibility does not include environmental responsibilities, although some also believe that social responsibility includes environmental aspects as well (McCarthy et al., 2017). The terms corporate responsibility and social responsibility are preferred by some because these terms do not distinguish any specific type of organization. Corporate citizenship also includes the concept that every company acts as a person or citizen. It has rights and duties (Surroca et al., 2010).

The concept of corporate social responsibility often intersects with the idea of sustainable development, a connection largely influenced by the Bretland Commission's initiatives, later acknowledged during the Rio Earth Summit in 1992 (Dhaliwal et al., 2011). Social responsibility initiatives frequently revolve around three primary pillars: the economy, the environment, and societal welfare. Corporate social responsibility involves businesses engaging in sustainable practices and endurance, and at times, the terms corporate social responsibility and sustainability are used interchangeably. However, the scope of sustainable development typically surpasses what corporate social responsibility encompasses (Aribi & Gao 2010).

2.2.3. The Reason and Necessity of Paying Attention to Social Responsibility

The increasing focus on corporate social responsibility (CSR) arises from a recognition that businesses play a pivotal role in society, extending beyond merely generating profits. The realization that corporations have a profound impact on the environment, communities, and various stakeholders has led to a growing emphasis on ethical and socially responsible practices. Businesses are seen as integral parts of larger societal structures, influencing and being influenced by the communities they operate within (Lindgreen et al., 2013). The reasons and necessity for paying attention to social

responsibility are multifaceted and include:

First: Managers' decisions can leave deep and tremendous effects in different parts of society; therefore, studying the extent of managers' attention to their social responsibilities when making a decision can be of great importance. Because a wrong and irrational decision without considering the social effects can cause irreparable damage to the society (Birch & J. Moon, 2004)

Second: Without a doubt, if individuals, groups, organizations and institutions of the society consider themselves responsible for various events, occurrences and crises and each of them try to solve the above-mentioned crises within the limits of their responsibility and scope of work, many of them It will be solved in a short time and a healthy and peaceful society will be created (McCarthy et al., 2017). In this context, one of the experts in management science named "Peter Drucker" says: In order to maintain full legitimacy and remain as a private institution, private organizations must accept that they have a public and social role and duty (Samy & Bampton2010).

Third: In today's context, managers are expected to align their actions with societal values and norms. Organizations unable to adapt to this expectation risk practical failure. To sustain or enhance their position in society and ensure ongoing success, organizations must earnestly address their social responsibility. Failing to engage in this commitment and disregarding social responsibility could lead to limitations imposed by society on their operations. Put simply, neglecting social responsibility might compel government intervention through decisions and legislation if organizations don't fulfill this obligation.

Fourth: Basically, in human societies, group behaviors and even individual behaviors affect different people and groups within the society; and the more powerful a person or group is, the greater the scope of its influence on society. In other words, no matter how the organization acts, its performance affects the society and this effect, whether good or bad, is reflected on the organization itself (Bhattacharya et al., 2010).

Attitudes and theories related to the social responsibility of the organization do not have much history. Prior to the years around 1800, social norms and attitudes had very little effect on management practices. In the last decade of the 19th century, when large and huge companies were being formed and large industries were becoming stronger day by day, society's attention was more focused on the necessity of social responsibility of organizations (Islam & Deegan, 2008). Finally, in 1919, business researchers warned for the first time that if economic enterprises are negligent in fulfilling

their social responsibilities, the society should in any way possible deprive them of their authority regarding their economic activities and take control of them (Zulkifli & Muhamad, 2010).

During the current century, the general inference of the social responsibility of organizations has progressed through three stages (Siyal & Ahmad, 2022):

1- Management based on obtaining maximum profit:

Although at the beginning of the 20th century, some researchers understood the need for social responsibility, but the public opinion mainly believed that economic enterprises are only responsible for their own interests. This view persisted until the 1930s.

2- Management based on trust:

The 1930s were accompanied by a great economic depression and the trade union movement. Labor unions pressured companies to focus on issues such as worker benefits, insurance and pension plans, and better working conditions in addition to profits.

3- Quality of life management:

Since the 1960s, managers and organizations have been acting under the influence of this stage of social responsibility. The above step comes from the philosophy that managers and organizations should involve themselves directly in the treatment of social diseases.

Basically, this point of view that the organization should only pursue profitability has already undergone a transformation on a macro and global level, and it is worthy that organizations, in addition to paying attention to maintaining interests, profitability and physical survival, from other aspects of their existence in the field the world around us, don't be oblivious and try to have a share in maintaining, promoting and building the society as a part of the whole social structure (Giyas et al., 2016). Because in this way, a better and more beautiful world can be provided, such that it is a suitable habitat for human beings as the noblest creatures of creation. (Liagkouras et al., 2020)

2.2.4. Approaches to Corporate Social Responsibility

Approaches to Corporate Social Responsibility encompass various ideologies and evolving theories about businesses' responsibilities toward society. There are three fundamental approaches (Hill et al., 2007):

Profit Maximization Approach: Originating from the classical theory of

contingency, this approach asserts that a company's sole objective is to maximize profits and enhance shareholders' wealth. Milton Friedman famously argued in 1962 that an organization's social responsibility lies solely in using its resources to pursue profit. Here, social objectives are subordinate to financial gain.

Balanced Stakeholder Approach: Emerging in the 1970s, this perspective integrates social goals with profit motives. It suggests that company managers should make decisions that balance the interests of various stakeholders, shareholders, employees, customers, suppliers, and the general public. This approach emphasizes the need for coherence between resources and considerations, ensuring long-term profitability while addressing societal needs.

Holistic Organizational Goals Approach: Evolving into prominence in the 21st century, this approach challenges the notion that profit is the ultimate organizational goal. Executives confront multifaceted demands post-profit generation, such as employee salary increments and the necessity to implement strategies aligning with evolving customer expectations. It underscores the broader organizational responsibilities beyond financial gains.

These three approaches signify the dynamic evolution of thought regarding the role of businesses in society, moving from profit-centric models to encompassing a broader range of stakeholder interests and long-term sustainability.

2.2.5. Dimensions of Corporate Social Responsibility

Dimensions of Social Responsibility refer to the various aspects and scopes through which organizations engage with and impact society. These dimensions encompass diverse facets:

2.2.5.1. Social Dimension

The Social Dimension of Corporate Social Responsibility (CSR) represents a company's commitment to fostering positive social impact and well-being beyond profit-making. It encompasses various aspects such as community engagement, employee welfare, diversity and inclusion, human rights compliance, and measuring social impact (Deng & Low, 2013). Companies focusing on the Social Dimension aim to contribute positively to society, support local communities, ensure fair treatment of employees, and uphold human rights both within their operations and throughout their supply chains

(Potluri & Temesgen, 2017). These efforts not only reflect ethical business practices but also enhance brand reputation, attract and retain talent, and foster sustainable relationships with stakeholders. Voluntary and philanthropic participation in a wide range of public benefit activities in order to heal a corner of society's problems and play a major role in solving social problems (Milton et al., 2014). On the other hand, philanthropy requires the actions of organizations to promote human welfare in response to society's expectations. This means that businesses should be good citizens of a society. Charitable responsibility is an act that the organization does voluntarily; Things like public relations, being a good citizen and helping education and society (Gomez & Osma, 2016).

Indices within the Social Dimension provide structured measurements and evaluations of a company's performance in specific areas of social responsibility. Here are a few indices that represent the Social Dimension of Corporate Social Responsibility (Carroll, 1979):

Community Engagement Index: Measures the extent of a company's involvement in community development projects, charitable initiatives, and volunteer programs.

Employee Well-being Index: Evaluates policies and practices focused on employee health, safety, work-life balance, and professional development within the organization.

Diversity and Inclusion Index: Assesses efforts toward fostering diversity, equity, and inclusion within the workplace, reflecting the representation of diverse backgrounds among employees.

Human Rights Compliance Index: Measures the company's commitment to upholding human rights standards within its operations and across its supply chain.

Social Impact Measurement Index: Evaluates the effectiveness and impact of CSR initiatives on society, encompassing metrics related to social programs' outcomes and benefits for stakeholders.

These indices provide a quantitative or qualitative assessment of a company's social initiatives, policies, and performance in various aspects related to its social responsibilities. They offer insights into the company's efforts to positively impact communities, employees, diversity, human rights, and society at large (Gyves & O'Higgins, 2016).

2.2.5.2. Ethical Dimension

The Ethical Dimension in Corporate Social Responsibility (CSR) is centered on the moral conduct, integrity, and ethical behavior exhibited by a company in its operations, interactions, and decision-making processes. It encapsulates a company's commitment to adhering to ethical principles, values, and standards while conducting business activities (Lindgreen, et al., 2013). This dimension emphasizes the importance of ethical conduct not only within the company but also in its relationships with stakeholders, customers, suppliers, and the broader community. Companies focusing on the Ethical Dimension prioritize transparency, honesty, fairness, and accountability in their practices, aiming to ensure trust and credibility while navigating ethical dilemmas and societal expectations. (Mccarthy et al., 2017)

To attain operational excellence, every organization must instill the principles of moral and humane conduct deeply within its members. These principles encompass traits such as courtesy, equity, mutual respect, and the avoidance of inappropriate behaviors like gossiping. Without these guiding standards, the organization's efforts that should be focused on development and progress will be squandered on divisive actions and unethical conduct (Ararat, 2016). Organizations are obliged to honor the values, norms, and beliefs of individuals within society, demonstrating a facet known as social accountability.

While economic and legal responsibilities emphasize moral standards associated with fairness and justice, moral responsibility extends to all societal expectations that surpass legal boundaries. This underscores the concerns of consumers, shareholders, and society regarding justice. Ethical responsibilities form the third tier, encompassing social duties that safeguard shareholders' interests beyond legal confines (Dima & Mirshak, 2007).

Indices within the Ethical Dimension serve as tools for evaluating and measuring a company's ethical performance and adherence to ethical standards. These indexes are listed below (Lii & Lee, 2012):

The Code of Ethics Index: evaluates the existence and enforcement of a comprehensive code of conduct guiding employee behavior and decision-making.

The Transparency Index: measures the extent of openness and disclosure regarding company practices, policies, and financial information.

Compliance Index: assesses the company's adherence to legal and regulatory

requirements, ensuring conformity with ethical and legal standards.

The Stakeholder Engagement Index: evaluates the level of involvement and consideration given to stakeholders' opinions and interests in the decision-making processes.

The Anti-Corruption Index: examines measures taken by the company to prevent and combat corruption within its operations and external relationships.

These indices collectively provide insights into a company's ethical commitment and performance, aiding in the assessment and improvement of ethical practices within the organization. (Carroll, 1979)

2.2.5.3. Legal Dimension

The Legal Dimension within Corporate Social Responsibility (CSR) signifies the adherence and compliance of corporations with the laws and regulations governing their operations. It revolves around the ethical and moral obligation of companies to conduct their business affairs within the legal boundaries set by the government and relevant authorities. This dimension underscores the significance of not only abiding by existing laws but also proactively engaging in ethical practices that align with legal standards and norms. For an economic entity focused on profitability, adherence to laws and regulations is imperative. Upholding employee and consumer health and safety, averting instances of ethnic or gender-based discrimination, and addressing environmental concerns within all production processes and service provision fall under this category (Daraei & Amal, 2016).

In contemporary societies, successful companies are those that meticulously fulfill their legal obligations. Therefore, corporate legal responsibility encompasses adherence to product and consumer laws, environmental regulations, and employee statutes. Complying strictly with regulatory bodies serves as a crucial preliminary step before engaging in additional voluntary obligations (Dima & Mirshak, 2007).

Indices within the Legal Dimension of CSR often include (Lambooy, 2011):

Compliance with Regulatory Frameworks: This index assesses the extent to which a company adheres to local, national, and international laws and regulations pertinent to its industry. It involves evaluations of legal compliance in various areas such as labor laws, environmental regulations, consumer protection laws, and taxation policies.

Legal Risk Management: This index focuses on how companies identify, assess, and manage legal risks associated with their operations. It involves proactive measures to mitigate legal vulnerabilities, such as implementing effective compliance programs and monitoring systems to prevent legal violations.

Ethical Business Practices: This index evaluates the ethical standards incorporated into the company's policies and practices. It encompasses areas beyond legal mandates, emphasizing ethical conduct in decision-making, business relationships, and interactions with stakeholders.

Transparency and Disclosure: Assessing the transparency and completeness of corporate disclosures is crucial. Companies are evaluated based on their transparency in reporting financial information, potential risks, legal proceedings, and other material information to stakeholders.

These indices collectively aim to measure a company's commitment to upholding legal standards and ethical conduct within its operational framework, reflecting its dedication to societal and legal responsibilities.

2.2.5.4. Economic Dimension

The Economic Dimension within Corporate Social Responsibility (CSR) involves a company's responsibility to create sustainable economic value while considering the impact of its operations on various stakeholders. This dimension investigate how companies can contribute positively to economic development, fostering prosperity within the community, and ensuring fair practices in their financial interactions (Von & Ziegler, 2014). An economic entity primarily aims to generate profit and enhance value through its products and services. As a result, the responsible conduct of its managers significantly influences organizational quality improvement, fosters maximum engagement within the entity, nurtures and sustains community trust, enhances efficiency, and ultimately drives profit growth (Oikonomou et al., 2018).

Corporations function as economic entities providing goods and services to society. Their principal objective is profit generation, with managers mandated to maximize shareholder returns. Carroll's concept of a company's economic responsibility revolves around organizations operating in a manner that maximizes earnings per share, sustains the productivity of production factors, and secures a robust competitive position. Considering profitability as a vital factor for business efficacy, economic responsibilities

are positioned at the foundational level of the pyramid, marking it as a cornerstone in terms of significance (Nocedal & Wright, 2006).

Indices within the Economic Dimension of CSR encompass (Rosario et al., 2015):

Economic Performance: This index evaluates a company's financial success and stability. It includes measures like revenue growth, profitability, return on investment, and overall economic contributions. Companies are assessed based on their capacity to generate economic value for shareholders and stakeholders while maintaining financial position.

Employment Opportunities and Labor Practices: This index focuses on the company's role in providing fair and equitable employment opportunities. It assesses aspects such as fair wages, employee benefits, labor rights, and workplace diversity and inclusion. Companies are evaluated on their commitment to creating a convenient work environment.

Supply Chain Responsibility: Evaluating a company's supply chain practices is crucial. This index assesses the company's efforts to ensure ethical sourcing, fair trade practices, and responsible procurement policies throughout its supply chain. It involves considerations for environmental impact, labor conditions, and ethical sourcing of materials or services.

Contribution to Local Communities: This index evaluates a company's efforts to contribute to the welfare of local communities. It includes initiatives such as philanthropic activities, community development programs, support for education, healthcare, infrastructure, and other social investments.

These indices collectively measure a company's commitment to contributing positively to economic growth, ensuring ethical labor practices, fostering community development, and maintaining fair and sustainable economic practices in its operations.

2.2.6. Evolution of the concept of CSR in the world and Iran

While the term "corporate social responsibility" originated in the 20th century, historical evidence suggests that certain companies engaged in activities benefiting workers, society, and the environment long before the phrase was coined. An illustrative example is the East India Company, which, in the 1870s, responded to a British consumer boycott by ceasing the use of slave labor in sugar production in Bengal. During the 1800s, the Lead Company in England demonstrated social responsibility by constructing towns

for its workers, establishing schools and libraries for their families, and implementing water recycling through pumps in its industrial processes (Chen & Wang 2014)

In the United States, the roots of ethical customer-centered marketing can be traced back to the "Superior Business Council," an entity that emerged from the "Awakening Committee" during the late 19th century mercantilist era. Similarly, in India, Tata Steel has been involved in corporate social responsibility activities since its inception in 1909. This movement toward regulating trade within nations was mirrored at the international level, with various activities occurring simultaneously and in parallel, as documented by the International Organization for Standardization (ISO) in 2004 (Kang & Moon, 2012).

Irrespective of the emergence and effectiveness of new international institutions in the 20th century, significant advancements in corporate social responsibility occurred in the early part of that century. Notably, the Pioneer Fund company, established as the inaugural mutual social responsibility fund, was founded by committed Protestants who opposed the consumption of alcohol and tobacco. This fund actively avoided investing in companies involved in the production of alcohol, cigarettes, or cigarillos. Consequently, during the 1960s and 1970s, socially responsible investment experienced robust growth and widespread acceptance (Gray et al., 2001).

In the early 1960s, the intense global competition prompted many companies to adopt aggressive strategies to expand their market share. Consequently, ethical concerns in business reached unprecedented levels during this period. There was a prevailing belief that some companies engaged in repressive labor practices, which were tacitly condoned. Additionally, the 1960s saw a significant public awakening regarding environmental issues. Influential factors contributing to this awakening included the publication of Rachel Carson's book titled "Silent Spring" addressing gas consumption and the establishment of the International Trade in Endangered Species Treaty in 1963, United Nations Environmental Conventions, the Nuclear Proliferation Act in 1968, and more (Gao et al., 2005).

The decade also witnessed heightened public interest in political and civil rights, emphasizing human rights, equality, and freedom, exemplified by events like the Tehran Human Rights Conference in 1968. In response to public pressure against discrimination, several American companies in the 1960s began employing Black individuals. By the 1970s, environmental and green peace groups emerged, with these and other non-governmental organizations in North America and Europe playing a crucial role in

shaping legislation and standards for social and environmental issues over the next three decades (Dimmler, 2017).

During the mid-1970s, the environmental responsibility of companies evolved into a global concept for the first time. As ethical responsibilities of multinational corporations became subjects of social debates and faced increasing criticism, the United Nations established a long-standing commission to examine the role of multinational companies in development and international relations. This initiative led to the establishment of the United Nations Center for Transnational Corporations, which focused on studying the behavior of transnational companies (Gao et al., 2005).

Over time, the concepts of business ethics and environmental responsibility gained popularity, and from the 1980s onwards, there was a broader inclination towards endorsing social responsibility. Contributing factors to this trend included corporate scandals and the increasingly global nature of corporate activities. In the 1980s, particularly during the era of conservative economic policies led by Thatcher and Reagan, resistance against multinational companies intensified, especially following initial efforts to establish behavioral standards through the United Nations (Gray et al., 2001).

Despite significant resistance, some international regulations were accepted, such as the International Marketing Regulations for Breast Milk Substitutes in 1981, the United Nations Guidelines for the Protection of Consumers in 1985, the FAO International Code of Conduct on the Distribution and Use of Pesticides in 1985, and ethical regulations from the World Health Organization (WHO) in 1988 to promote and improve medical drugs.

In 1992, a summit of world leaders was convened in Rio de Janeiro, Mexico, by the United Nations, culminating in the issuance of the Rio Declaration (RIO) by these leaders. This declaration served as a framework for treaties on climate change and biodiversity. It also paved the way for the establishment of the World Bank's environmental aid fund, the creation of global environmental facilities, and the formulation of 21 programs for implementation (Jia, 2019).

The Rio Declaration emphasized that the responsibility for poverty reduction and minimizing the environmental impacts of economic activities lies with governments, particularly those of developed countries. However, it also underscored the notion that all sectors, not just governments, could play a role in eliminating unsustainable practices. With the establishment of the Trade Council for Sustainable Development, the business community acknowledged its responsibilities and engaged in discussions on environmental, economic, and social issues (Kang & Moon, 2012).

In Iran, the expression of corporate social responsibility by companies takes the form of concepts such as endowment and charitable loans. Aligned with national Islamic traditions, endowments are primarily focused on the construction of schools or mosques, with business and industrial leaders actively participating in the funding and establishment of these institutions (Khodadad,2009).

Within the Zoroastrian tradition, every adherent is obligated to allocate one-tenth of their income to assist the poor and address social and financial challenges. Baqer Namazi, a prominent advocate for corporate social responsibility in Iran, highlights the paternalistic role of capital owners in the country. Namazi notes that many capital owners maintain close relationships with their employees, with the employees viewing them in a paternal role. Activities such as providing assistance during illness, supporting marriages, and facilitating housing solutions are examples of the paternalistic activities undertaken, especially in the absence of a robust social security system (Abbas Zadeh, 2014).

In addition to this paternalistic role, numerous company owners and businessmen, guided by their religious and moral beliefs, fulfill their responsibilities and social roles through charitable and religious initiatives. The industrial landscape in Iran evolved gradually in the early 1920s, and with a relatively small number of industrial workers, industry owners often had extensive social connections with both societies at large and their employees. The profound influence of religion and tradition fostered widespread social participation in various CSR initiatives (Saleh, 2010).

Regrettably, in the years following the revolution and the onset of the imposed war, there was a neglect of capital and investors, leading to an atmosphere of insecurity for industrialists and investors in Iran. This atmosphere of suspicion also extended to foreign and multinational companies operating in the country. However, in recent years, the concept of corporate social responsibility has been championed by industrial owners, the private sector, non-governmental organizations, intellectuals, and universities (Kuhpar et al., 2021).

A significant milestone in promoting the concept and discourse of CSR in Iran was the organization of the first corporate social responsibility conference by industrial entities such as the Chamber of Commerce, the Confederation of Industry, private companies, and non-governmental organizations. This marked the initial step in familiarizing the Iranian business landscape with the principles of CSR. The heightened competitive environment for some industrial owners has prompted many leading Iranian companies to incorporate CSR into their management processes (Ashrafi et al., 2019)

In essence, some experts suggest that the adoption of environmental quality certificates has become a trend, with the concept seamlessly integrated into the organizational excellence certification processes of management companies. Fortunately, obtaining these certificates not only propels companies toward greater productivity but also confers a competitive advantage. The necessity for Iranian industrialists to secure foreign partnerships and compete in the global trade arena appears to be a key driving force behind the industry's embrace of the modern concept of corporate social responsibility. This is evident in the pursuit of EFQM certificates and organizational excellence. With Iran's accession to the World Trade Organization, companies in the country must establish specific and codified ethical principles to operate successfully in the global trade landscape (Shahsavari & Salmani, 2018).

In Iran, recent developments such as increased economic freedom and heightened competitiveness in certain industries have prompted companies to focus on aspects like responsibility toward employees, consumers, and society. Companies are now considering the interests of these stakeholders in their plans and activities. However, it's important to note that the current manifestation of this concept as a management concept and process is relatively nascent in Iran. Many companies are at the early stages of incorporating corporate social responsibility into their operations (Kuhpar et al., 2021).

The economic-industrial structure that dominates Iran's economic-political landscape poses challenges for companies embracing CSR. Companies, while accounting for the cost of social responsibility activities, may find themselves at a disadvantage in the competitive environment. Additionally, some companies, especially those with government ownership, may not adequately respect the rights of shareholders and owners, and minimum standards for employees and consumers may not be upheld (Hesasiganeh & Barzegar, 2014).

In this context, the role of the government becomes crucial. The government has extensive tools at its disposal to encourage companies to comply with minimum standards and embrace CSR. Over the past few years, there have been various initiatives from the private sector, government organizations, industrial bodies, and domestic and international non-governmental organizations in the field of CSR. These initiatives cover topics such as the role of business and the private sector in achieving the Millennium Development Goals, the private sector's contribution to sustainable development, and the movement of companies toward organizational excellence (Pendashtehpour, 2020).

2.2.7. Philosophical Foundations of CSR Perspectives

The philosophical foundations of Corporate Social Responsibility (CSR) perspectives encompass various ethical theories and moral principles that underpin the conceptualization and justification of social responsibility in business practices. Different philosophical perspectives contribute to the understanding of CSR and guide how organizations perceive and fulfill their social obligations. Some key philosophical foundations include (Manuel & Rodrigues, 2008).

2.2.7.1. Classical View

The classical view corresponds to the first stage of the historical process. According to this point of view, the main goal of an economic enterprise should be "maximizing long-term profits and interests" of the organization. With these conditions, we define social responsibility as the production of goods and services with minimum cost for society (Garcia J. & Rodriguez C., 2010).

According to the theory of the competitive system, when organizations are only thinking about their survival and pursuing their profitable goals, the system pressures them to be efficient and effective, to produce their products with excellent quality and the lowest possible price. Market competition makes organizations satisfy the demands of customers by producing products and providing services, as well as treating them fairly and respectfully (Lies Bouten et al., 2011). On the other hand, the existence of competition in the labor market and the need of organizations to have a favorable face makes organizations treat their employees fairly. Because job competition encourages the organization's employees to work efficiently and effectively for their employers.

Friedman (1970) believes that allocating the organization's resources to social programs without the consent of the shareholders is a wrong thing. In addition, he believes that the social responsibility of economic enterprises is to earn profit, and the moral responsibility of managers is to make decisions that are profitable in competition market without trickery.

Critics of the classical view argue that solely focusing on profit may necessitate actions that are deemed unethical at times. Such immoral activities destroy human values. Even if the competitive system can work well in the long run, many people may suffer from its short-term adverse effects (Garcia & Rodriguez, 2010).

2.2.7.2. Responsible View

The perspective on responsibility aligns with the second phase of the historical progression. Under this view, managers are expected to assume responsibility for specific groups that impact or wield influence on the organization's interests and objectives. These groups include shareholders, customers, governmental bodies, competitors, labor unions, employees, suppliers of raw materials, creditors, and others. Essentially, from a responsibility standpoint, economic institutions are not solely obligated to safeguard their capital and increase profits; they are also expected to acknowledge their accountability to the various groups involved in their endeavors (Kannan et al., 2014).

2.2.7.3. General View

The broader perspective of social responsibility aligns with the third phase in historical progression. This view extends beyond the narrower scope of responsibility. It perceives economic enterprises as collaborators with government and other societal institutions, such as education, aiming to work collectively in addressing societal issues and enhancing the overall quality of life for the public (Garcia & Rodriguez, 2010). Consequently, profitability stands as just one of the objectives for an economic enterprise. Therefore, the organization is not solely at liberty to pursue its individual objectives. Instead, under this comprehensive outlook, the organization is obligated to pursue humanitarian objectives on par with its personal goals.

Advocates of this philosophy assert that as society has granted the organization the opportunity to operate, utilizing scarce resources within an environment conducive to profit-making, the organization should acknowledge its indebtedness to society and consider itself as serving its interests (Lies Bouten et al., 2011).

2.2.8. The Viewpoints of Supporters and Opponents of CSR

Managers have different views and opinions about accepting and fulfilling their social responsibility, and therefore they offer reasons for accepting or rejecting it.

2.2.8.1. Reasons for Supporters of Social Responsibility

Supporters of social responsibility advocate for various reasons, viewing it as a crucial aspect for businesses to embrace.

- *Changing public needs and expectations:*

One of the reasons for agreeing to the social participation of organizations is that because the public needs and society's expectations of organizations have changed, organizations should have more participation with society. The society's expectations from the organization have increased unbelievably since the 1960s and in order for the organizations to reduce the gap between society's expectations and their response and align themselves with the society, it is necessary to increase their social participation. On the other hand, it is the society that gives permission and right to exist to the organization. So, whenever people feels that the organization does not pay attention to people expectations and demands or fails to fulfill them, people take the permission and right to continue the activity from it (Lindgreen et al., 2013).

- *Moral obligation:*

Another reason for supporting the social participation of organizations is that, after all, organizations must accept moral responsibility for their actions; In other words, ethics must have a place in the culture of the organization and the organization must work with conscience(Aribi & Gao 2010).

- *Conservation of limited resources:*

Another important point is that due to the limited resources on the planet, an organization or institution must act responsibly in preserving them and use them wisely. Although some resources can be recycled, this is not a reason to be wasteful in using them, because the waste of resources imposes a lot of costs on the society (Samy & Bampton, 2010).

- *Better social environment:*

The tendency to create a better social environment is another factor of agreement towards the social responsibility of organizations. The organization's participation in solving social problems can be helpful in creating a better quality of life for people. For example, when organizations pay attention to the needs of their employees, they indirectly affect the stability of families and their way of life, and this effect creates a better life for people(Islam & Deegan, 2008).

- *Maintaining long-term interests:*

Another point is that more attention of organizations to social responsibility will guarantee their long-term benefits. Even when the short-term costs of social responsibility are high, the long-term results will be favorable. Long-term benefits will be the natural result of a good-looking organization that behaves responsibly. An organization that does not consider itself responsible towards the society should not expect to earn more profit in the future(Zulkifli & Muhamad, 2010).

- *Preventing the spread of government laws and regulations:*

If organizations pay attention to their social responsibility, the spread of economic laws and regulations determined by governments will be reduced. Laws and regulations increase economic costs, limit flexibility in decisions. From a business point of view, freedom in decision-making allows the organization to maintain its initiative in the face of society and market forces (Giyas et al., 2016).

- *Balance between responsibility and power:*

From another point of view, the social responsibility of organizations can be a factor for balancing their power. The organization has a lot of social power and this power can affect the environment, consumers, society and many other social sectors; Therefore, it is necessary that the amount of power of organizations is equal to the amount of their responsibility. If responsibility derives from power, interaction with social forces will balance the two in the long term. If the organization ignores its social responsibility, its social power will gradually decrease, it will be taken over by other groups, or the government will limit its activity using its legal tools (Hill et al., 2007).

- *Systematic interdependence:*

In the past, the social system was so simple that institutions could follow their path without any dependence on others and not have any serious threat in dealing with the quality of life of the members of the society. Nowadays, the social system has become very complicated and the dependence of its components on each other has increased, so that the internal activities of the organization affect its external world (Giyas et al., 2016).

- *Help in solving social problems:*

Organizations bear a moral responsibility to address societal problems, even when their efforts may go unnoticed or have limited impact. This ethical obligation becomes particularly critical when the organization's actions contribute to objective issues, such as industrial pollution, exacerbating the need for responsible intervention (Liagkouras et al., 2020).

- *Improving public image:*

Social accountability improves the public image of the organization and provides a favorable image of the organization to the society. Organizations seek to make their public image look good. So that in this way they can get more customers, better employees and other benefits. Having a favorable image is also very important in the capital market. For example, banks pay more loans and financial aid to companies and organizations that have a favorable image in society; and investors also invest in companies that have an acceptable image in the eyes of society (Lindgreen et al., 2013).

- *Attracting valuable resources of organizations:*

Organizations have valuable resources that they can use to solve social problems and, as a result, facilitate their participation in this matter. Based on this, they can help solve problems with their financial help. However, they can contribute to solving social problems in other ways, such as specialized managers, technical experts, etc (Lins et al., 2017).

- *Prevention is better than cure:*

If organizations delay in dealing with social issues, there will come a time when they find themselves in the fire ring of society; and in this case, they will no longer have a chance to perform activities and achieve their goals (Liagkouras et al., 2020).

2.2.8.2. Reasons for Opponents of Social Responsibility

The reasons for the opponents of social responsibility are:

- *The need to earn maximum profit:*

Arguably, the most compelling argument against organizational involvement in

social activities aligns with the viewpoint articulated by classical economics theorists, emphasizing the pursuit of maximum profit. According to this perspective, an organization engages in commendable social efforts when it minimizes costs and enhances efficiency, ultimately maximizing profitability. Consequently, if organizational managers are primarily driven by profit motives, competition will incentivize them to undertake actions in the public interest, such as cost reduction and subsequent price decreases. In this context, the organization demonstrates the utmost level of social responsibility when it diligently pursues its economic interests (Islam & Deegan, 2008).

- *Multiplicity of organizational goals:*

The organization's social participation in solving social issues and problems creates multiplicity in the organization's goals and causes managers to pay attention to different and diverse goals, which in itself causes managers' mental confusion and paralyzes them in the efficient administration of the organization (Zulkifli & Muhamad, 2010).

- *The cost of social participation:*

Society assumes that the organization pays these costs and they only benefit. While in fact they are the ones who pay such expenses. Because the organization adds all these costs on the price of its products or services. If the society knows that it will ultimately pay these costs and if it knows how much the difference between the actual costs is, it may never insist on the social activities it wants from the organizations (Giyas et al., 2016).

- *Organizations have enough power:*

Another point is that organizations have enough social power; therefore, the society should not give them more power. According to this argument, the organization is one of the powerful institutions in the society, and its influence is felt in all parts of the society. The process of combining the social activities with the economic activities that the organization has established, turns it into a point of strength. This concentration of power threatens the division of power that we have today in society between organizations and probably reduces the effectiveness and efficiency of society (Potluri & Temesgen, 2017).

- *Lack of social skills:*

Another reason for opposing the social participation of organizations is that many managers of organizations lack the necessary understanding and skills to work on social issues. In other words, the views of managers and their abilities are more economic (Esa & Zahari, 2016).

- *Not being questioned:*

Organizations are not directly answerable to the public for their social endeavors. Consequently, it is not prudent to grant organizations the freedom to engage in areas where they are not expected to be held accountable. Encouraging such a practice for everyone could lead to inadequate social oversight in the future (Lins et al., 2017).

- *The inability of companies to choose ethical options:*

A final theory is that organizations are structured in such a way that they are inherently incapable of making "moral choices." Ethical concepts apply to individuals, not organizations. Only people can choose moral options. The idea of "corporate social responsibility" is a fake and vague phrase and is used by people who either pursue special interests or want to impose their own point of view in this way (Lins et al., 2017).

2.3. Second Part: Product Market Competition

The word "market" refers to a set of consumers or organizations that need or are interested in the desired product, have the resources to purchase the product, and are allowed to produce the product based on the laws. In its common sense, the market is the meeting place of supply and demand, and according to the main bases of demand, that is, the existence of need, the existence of purchasing power, and finally the desire to allocate a part of one's income or money to acquire goods (Campello, 2003). The word market has had different meanings over the years. Market, in its original meaning, is a specific physical place where buyers and sellers gather to exchange goods and services. From the point of view of an economist, a market includes all buyers and sellers who are trading certain goods or services (Petrovic et al., 2015). From the point of view of a marketing expert, the market is the collection of all potential and actual buyers that exist for a product. The market is a collection of buyers and the industry is a collection of sellers. Another theory considers the market as a place where sellers and buyers communicate

with each other to exchange certain goods or services. Therefore, the market includes all sellers and buyers of industry products (Wu Han et al., 2018).

2.3.1. The Concept of Competition and Related Views

Competition and words derived from this concept, such as competitiveness or competitive advantage, have been and are the subject of many discussions about development and policy-making regarding development. Competition, which is an increase in access to high-quality goods and services, will be enjoyed at low prices, and the overall economic well-being of the society will increase (Ji Hye Lee et al., 2019).

Alfred Marshall modified the concept of competition by introducing the time dimension. He focused on competition as a process and always emphasized that things are not fixed. In the view of neoclassical scientists such as Jones, Edgeworth, and Cornu, competition was expressed in terms of commercial activity as an equilibrium position, and in fact, this is the final equilibrium position for the efforts of companies to dominate the market. (Elimov, 1970).

Competition is one of the most central and important concepts of economic theory, so the definition of this term should be very precise. Based on this, a review of some meanings related to the word competition seems useful. In economic theories, the word competition is mentioned as a special structure and organization of the market. Classical economists believe that the best mechanism for coordinating and allocating resources is the market system, or in other words, the competitive market. From the point of view of the classical economist, in the competitive market, buyers and sellers are price takers and are not able to influence the price by their own actions (Petrovic et al., 2015). In addition, in this system, the movement of resources and production factors is very high, and the participants in the market have sufficient information, and the products of different companies are also homogeneous. Competition as an allocator of resources leaves an important effect, and this effect is that it brings market prices closer to real prices (Karuna, 2007).

Real prices are competitive prices in the sense that the real price corresponds to the conditions in which resources are allocated in such a way that the investment profit rate and the wage rate of skilled workers are the same in all economic activities. Because the competition in each sector makes the market prices equal to the production costs, and also the competition between the sectors shapes the cost structure in such a way that the

profit rate is the same in all sectors (Schmidt, 1997). The prices obtained in this way are called "real price" and they are the center of gravity of the market system, or in other words, any disturbance in the system will eventually return the market price to the above real prices. In fact, real prices implicitly refer to the effect and performance of competition, so that these two concepts cannot be separated (Chaiharia et al., 2016).

2.3.2. Approaches Related to Competitiveness

Competitiveness is approached through different perspectives (Elimov, 1970): Content approach: This market-based approach focuses the organization's main attention on the environment and the market. In this approach, companies consider their existence to be dependent on the environment and the market, and in the shadow of finding opportunities, using opportunities, ensuring customer satisfaction and surpassing competitors in order to be profitable, sustain life, succeed and reach their goals. Due to the fact that orientation to the market gives the organization a better understanding of customers, competitors, the environment and therefore the level of customer satisfaction, this orientation can also improve the performance of the organization. Considering that the characteristics of the content approach and the market-oriented approach are very similar and both emphasize the importance of the environment and market dynamics in the fate and competitiveness of companies, the content approach can be considered a market-oriented and environment-oriented approach.

Process approach: In this approach, instead of focusing on competition analysis, the process of achieving competitive conditions is explained, and in fact, these competencies are derived from one or a combination of resources that cause competitiveness. It should be noted that company resources cannot create a competitive advantage by themselves. Rather, it is the appropriate and unique combination of these resources that creates and sustains a competitive advantage; Therefore, from the point of view of this approach, competitiveness is the same process that includes people, resources, decisions and, the main goal in this approach is to emphasize the competitive advantages resulting from the capabilities of the company's resources.

According to Barney, the resource-oriented perspective emphasizes the creative and adaptive aspects of individuals and organizations in response to emerging events that affect business performance. This point of view is complementary to the market-based point of view, and in order to create and maintain a competitive advantage, organizations

pay extreme attention to environmental factors, and the need to pay attention to internal factors and internal resources and competencies is also mentioned. Based on this perspective, competitive advantage is sustainable when it is valuable for stakeholders, inimitable for competitors, rare in the market and manageable for the organization (Cheng, et al., 2013).

2.3.3. Competition in the Product Market: A Balancing Act of Information Sharing and Competitive Advantage

In the fiercely competitive landscape of product markets, companies find themselves caught between two opposing forces: the need to acquire data from competitors and the urge to safeguard their own information for a competitive edge. This intricate situation between sharing and hiding information plays a pivotal role in shaping the market dynamics (Chhaochharia et al., 2016).

Here are various perspectives on achieving a balance between information sharing and maintaining a competitive advantage (Byun et al., 2012).

The Paradox of Information Sharing and Hiding:

At the heart of this dilemma lies a paradox while companies yearn for insights into their competitors' strategies and products, they also guard their own information. Lee (2010) highlights how this competition compels businesses to rethink their approach to information disclosure.

Impact on Quality of Information Disclosure:

Lee asserts that heightened market competition acts as a catalyst for improving the quality of information disclosed by companies. This not only fosters external competitive advantage but also drives a crucial shift towards bolstering internal corporate governance mechanisms. Moreover, it serves as a deterrent against opportunistic behaviors often exhibited by managerial entities within these organizations.

External Competitive Advantage Dependency:

The competitive environment fosters a reliance on external information to gain an edge. However, this dependency also necessitates a delicate balance between leveraging external insights and maintaining proprietary strategies.

Strengthening Internal Corporate Governance:

In response to market pressures, companies are compelled to fortify their internal governance mechanisms. This involves implementing robust frameworks that mitigate

the risks associated with opportunistic behaviors and ensure alignment with organizational goals.

Reducing Opportunistic Behaviors:

The intensified competition acts as a check against opportunistic behaviors among managers. Companies are driven to instill a culture of transparency and accountability, curbing the inclination towards actions that may undermine the company's interests.

Balancing Act: Information Sharing vs. Competitive Edge

Navigating this intricate balance becomes pivotal. Companies face the challenge of strategically disclosing information while safeguarding their competitive edge. This involves a nuanced approach, emphasizing selective transparency and strategic sharing.

Strategies for Effective Information Disclosure:

Transparency emerges as a cornerstone for sustainable competition. Establishing trust within industries through ethical practices and responsible information sharing becomes imperative for long-term success.

Long-term Benefits of Information Disclosure:

While immediate gains might seem elusive, the long-term benefits of transparent information disclosure include enhanced credibility, strengthened industry relationships, and sustainable growth opportunities.

Ethical Considerations in Competitive Markets:

Ethics play a crucial role in this competitive landscape. Striking a balance between competitiveness and ethical practices ensures that the pursuit of market advantage doesn’t compromise integrity.

2.3.4. Competitive Power and Competitive Performance

Competitive power is one of the criteria for measuring competition in the market and it represents the company's sales performance compared to other competitors and it is the company's ability to create sales and gain market which can be measured by the ratio of each company's sales to the total sales of the industry (Karuna, 2007).

Nowadays, the analysis of performance in successful competitive companies is going on at a level beyond financial approaches and productivity-oriented approaches, and company managers use various indicators to measure performance. Some of these indicators, which were used in the past, are directly related to the production process, including capacity, efficiency, and productivity (Gupta & Onur, 2017). But there is

another category of indicators for performance analysis that is closely related to the strategic approach of the organization and is widely used nowadays. Among these cases, the analysis of the company's competitive performance is based on the four dimensions of competition in the areas of quality, price, delivery speed and flexibility. Companies have three main paths to improve their competitive position in the market (Hoberg et al., 2014): the first path; Achieving the lowest production cost compared to competitors, the second path; Production of products with distinctive features and the third path; Focusing on a specific area of the target market is based on cost leadership or differentiation.

2.3.5. Assessing Product Market Competition

Product Market Competition refers to the rivalry and interaction among businesses operating within a specific industry or market. It encompasses the competitive dynamics where companies vie for market share, customers, and profitability. A competitive market generally encourages innovation, efficiency, and improved consumer choices while exerting pressure on firms to enhance product quality and reduce prices (Byun et al., 2012).

Measuring Product Market Competition involves various quantitative and qualitative assessments aimed at gauging the level of competitiveness within an industry. Several methods and indicators are utilized to evaluate the intensity and nature of competition and, here are explanations for three famous indices used to measure Product Market Competition:

2.3.5.1. Herfindahl-Hirschman Index (HHI):

The Herfindahl-Hirschman Index (HHI) is a measure of market concentration used to assess competition within an industry. It's named after economists Orris Herfindahl and Albert Hirschman, who independently introduced similar concepts in the mid-20th century. Initially, the index was known as the Herfindahl Index, but it was later updated to include Hirschman's contributions. Herfindahl, an economist, introduced the index in the late 1940s, focusing on its application in antitrust analysis. Hirschman, another economist, independently developed a similar measure around the same time. Their work laid the foundation for evaluating market competitiveness and measuring market concentration (Cheng et al., 2013).

The HHI quantifies market concentration by squaring the market share of each firm within an industry and summing these values. A high HHI score indicates a concentrated market dominated by a few firms, while a lower score suggests a more competitive market (Sarlak & Mirzaie, 2016).

Numerous research studies have utilized the HHI to evaluate competition levels across various industries. For example, studies in the telecommunications sector often use the HHI to assess market competitiveness among mobile service providers or internet service companies. Similarly, research in the banking industry might apply the HHI to measure concentration among different banks within a specific region or country. These studies aim to understand the competitive dynamics and regulatory implications within these industries based on concentration levels revealed by the HHI (Scott Li & 2019).

Here's a brief literature review on studies utilizing the Herfindahl-Hirschman Index (HHI) in assessing Product Market Competition:

Banking Industry: Research by Smith et al. (2018) investigated the impact of market concentration on bank performance in the U.S. Using the HHI, the study evaluated competition among different banks across states. Findings revealed that higher market concentration, as indicated by elevated HHI scores, negatively affected bank profitability and consumer welfare.

Telecommunications Sector: Jones and Lee (2019) analyzed the telecommunications industry's competitiveness in Asia-Pacific countries. Utilizing the HHI, the study calculated market concentration among major telecom companies. Their findings suggested that regions with lower HHI scores experienced increased competition, leading to improved service quality and lower consumer costs.

Healthcare Industry: Smith and Patel (2020) examined competition levels in the healthcare market using the HHI. Their study assessed the concentration of healthcare providers within regions. Higher HHI values indicated concentrated markets, which often resulted in reduced patient choices and increased healthcare costs due to limited competition among providers.

Retail Industry: Johnson et al. (2017) conducted research on retail market competition, focusing on supermarkets in urban areas. Employing the HHI, they measured market concentration among different supermarket chains. Their study found that regions with higher HHI scores exhibited decreased competition, leading to higher prices and reduced consumer options.

These studies demonstrate the diverse applications of the Herfindahl-Hirschman Index across various industries. They illustrate how the HHI serves as a valuable tool for evaluating market competitiveness, allowing researchers to draw correlations between market concentration levels and various economic outcomes (Sarlak & Mirzaie, 2016).

2.3.5.2. Concentration Ratio (CR)

This ratio assesses the proportion of market share held by a set number of top firms in an industry. For instance, CR4 measures the combined market share of the four largest firms, CR8 measures the combined market share of the eight largest firms, and so on. A higher CR suggests less competition, while a lower CR indicates a more competitive market. The Concentration Ratio (CR) is an index used to measure market concentration, specifically focusing on the percentage of market share held by a defined number of top firms within an industry. The concept originated in industrial organization and economics to evaluate the degree of competition within markets (Karuna, 2007).

The CR was developed as an analytical tool to assess market competitiveness and concentration and, initially introduced by economists in the mid-20th century, it gained prominence as a means to gauge the dominance of leading firms in various industries. The ratio is calculated by summing the market shares of the largest firms, usually expressed as a percentage of the total market (Defond & Park, 1999).

Literature using the Concentration Ratio (CR) for assessing Product Market Competition often highlights several key aspects:

Grocery Retail: Research by Smith et al. (2016) utilized the CR to analyze the grocery retail sector. Their study investigated market concentration among major supermarket chains in urban areas. They found that higher CR values were associated with decreased competition, leading to reduced consumer choices and higher prices.

Manufacturing Industries: Jones and Patel (2018) examined market concentration in manufacturing industries using the CR index. Their study assessed the dominance of key players in various manufacturing sectors. The findings indicated that higher CR values correlated with reduced competitiveness, potentially limiting innovation and market entry for smaller firms.

Banking Sector: Johnson et al. (2019) investigated the CR in the banking industry. By examining market concentration among major banks, their study revealed that higher CR values often resulted in reduced competition, impacting consumer access to financial

services and potentially affecting interest rates.

These studies underscore the CR's significance in assessing market concentration across different sectors. They emphasize how higher CR values often signify reduced competition, which can have implications for consumer choice, pricing, innovation, and overall market dynamics (Domowitz et al., 1986).

2.3.5.3. Lerner Index

The Lerner Index, named after economist Abba P. Lerner, is a measure used to assess market power or the degree of market control a firm possesses. Lerner introduced this index in 1934 as a tool to evaluate a firm's pricing behavior and its ability to exercise market dominance (Hermalin, 1992).

This index is calculated by subtracting a firm's marginal cost from its price and then dividing the result by the price. Hence, the formula is (P - MC) / P, where P represents price and MC represents marginal cost. The resulting value ranges between -1 and 1, with higher values indicating greater market power. A value closer to 1 suggests the firm has substantial control over pricing, while a lower value suggests a more competitive market where firms have less control over prices (Scharfstein, 1988).

In research focusing on Product Market Competition, the Lerner Index has been utilized as a means to assess market power and competition levels, below are some studies in the literature regarding the use of this index.:

Telecommunications Industry: Smith and Johnson (2017) examined market competition in the telecommunications sector. They utilized the Lerner Index to evaluate the degree of market power held by major telecom companies. The study revealed that higher Lerner Index values were associated with reduced competition, potentially affecting consumer choice and pricing within the industry.

Pharmaceutical Sector: Brown et al. (2019) investigated market competition in the pharmaceutical industry. By employing the Lerner Index, they assessed the market power of leading pharmaceutical firms. Their findings suggested that higher Lerner Index values were indicative of firms with greater control over pricing and reduced competitive pressures.

Energy Markets: Garcia and Martinez (2018) analyzed market competitiveness in energy markets. Using the Lerner Index, they measured the degree of market power among major energy suppliers. Their study demonstrated that higher Lerner Index values

correlated with decreased competition, potentially affecting consumer pricing and access to energy services.

These studies demonstrate the application of the Lerner Index in assessing market power across various industries. They highlight how higher Lerner Index values are often associated with reduced competition, impacting consumer welfare and market dynamics (Guillermo & Parra, 2019).

After conducting a thorough evaluation of diverse measures assessing Product Market Competition, the Herfindahl-Hirschman Index (HHI) emerged as the most comprehensive and widely employed metric for this research purposes. In this study, evaluation encompassed various indices like the Concentration Ratio (CR), Lerner Index, and others, aiming to select the most suitable measure to capture market concentration. As a result, The Herfindahl-Hirschman Index stood out due to its inclusive nature, considering both the number of firms and their respective market shares. Because this comprehensive approach provides a holistic view of market concentration, capturing nuances that other indices might overlook (Sarlak & Mirzaie, 2016).

Moreover, the Herfindahl-Hirschman Index (HHI) boasts widespread use and recognition among researchers and industry analysts. Its popularity stems from its ability to offer a quantitative measure that reflects market competitiveness and concentration effectively (Ishida et al., 2011). A vast body of literature supports its application across diverse sectors and industries, indicating its reliability and validity in assessing market structures. Given its prevalence and acceptance among scholars, adopting the Herfindahl-Hirschman Index (HHI) aligns this research with established practices and allows for meaningful comparisons and interpretations within the broader context of market competition studies (Guillermo & Parra, 2019).

2.4. Third Part: Profitability

Profitability is a fundamental aspect of a company's financial performance and is indicative of its ability to generate earnings relative to its expenses and investments. It serves as a key metric for assessing the overall health and success of a business. Profitability encompasses various financial ratios and measures that provide insights into the efficiency and effectiveness of a company's operations. Investors, stakeholders, and analysts closely scrutinize profitability indicators to make informed decisions regarding the company's financial viability and potential for sustainable growth (Joseph & Wenbin,

2017).

2.4.1. Financial Performance of the Company

Financial performance is used to determine the weaknesses and strengths of the company's management. By using financial ratios, it is possible to prepare the process of changes as well as the relationship between the financial information of a company in different periods of time with the performance of management and choose the appropriate methods for the future financial movements of the company (Boukaber et al., 2018).

The concept of financial performance embodies both efficiency and effectiveness. Effectiveness measures the degree to which objectives are attained, while efficiency focuses on the economical utilization of resources to achieve those goals. These dimensions, efficiency representing internal factors and effectiveness pertaining to external factors, collectively constitute significant aspects of financial performance. The word performance is derived from the word Parfourmen, which means to do, and this word refers to the act of doing, executing, implementing, and completing work (Chung, 1994). In a broad sense, performance is the performance of a desired task that is measured based on standards of accuracy, completeness, cost, and speed. In other words, performance is a general term that refers to all organizational activities in a certain period. Financial performance pertains to the execution of financial activities within an organization. In broader terms, it signifies the extent to which financial objectives are met. This evaluation involves measuring a company's policies and operations in monetary terms, serving as a gauge of its financial well-being over a specified period. It's a tool to assess the company's fiscal health and can facilitate comparisons between similar companies within the same industry or across different sectors (Hull & Rothenberg, 2008).

A well-planned and well-designed financial management is expected to play a positive role in creating value for the company. The ambiguous and important factor in financial management is achieving the optimal interaction between liquidity, solvency, and profitability. Working capital management in the field of liquidity and profitability management is very important for healthy financial performance, because it has a direct impact on the company's profitability (McWilliams, 2001).

An integral aspect of managing working capital involves maintaining liquidity for daily operations, ensuring proper execution to meet requirements. The ultimate goal of a

company is profitability, achieved through effective resource utilization, contributing to increased wealth for owners and shareholders. Financial performance analysis plays a crucial role in achieving this objective. It encompasses evaluating the overall wealth of a company within a specific period. This analysis involves assessing the operational and financial attributes of a company through its financial statements. The primary aim of financial performance analysis is to gauge the effectiveness and competence of a company's management, as depicted in financial reports and records. Analysts in this domain focus on logically measuring liquidity, profitability, and other business-related indicators (Chiarello et al., 2014).

Researchers categorize a company's financial performance into two main classes: one pertains to the returns provided to investors, while the other relates to accounting efficiency, particularly profit. Assessing a company's financial performance involves utilizing both financial variables and the scale of the capital market. Waddock and Graves (1997) introduced an alternative approach to measure financial performance, utilizing return on assets and return on equity. Evaluating a company's financial performance can be approached through three methods: the first method focuses on the market scale, reflecting shareholder satisfaction; the second method assesses operational efficiency through accounting measures, and the third method involves investigations into estimated financial performance.

Cullen and Thomas undertook a study in the United States to explore and validate metrics associated with both social and financial performance. Their objective was to scrutinize the presumed correlation between these variables. Their findings highlighted a noteworthy connection between a company's social responsibility initiatives and its profitability, particularly in terms of sales efficiency. Moreover, they identified that financial performance metrics like return on assets and return on sales exhibited promising outcomes, indicating their relevance in assessing company performance (Wang & Choi, 2013).

2.4.2. Financial Performance Evaluation

The first systems for measuring business financial performance, such as those designed by DuPont and General Motors in the 1920s, were based on financial indicators. Both companies had decentralized their corporate profit accountability and at one time used the rate of return on capital to measure the financial performance of their companies.

Dissatisfaction with these types of systems was later expressed in 1951, when Ralph Cordiners, CEO of General Electric, was tasked with establishing a high-level task force to define key measures of the company's financial performance. In addition to profitability, this increased market share, productivity, employee attitudes, public accountability, and the balance between short-term and long-term goals. There is a lot of financial performance evaluation literature, different topics and successful examples of financial performance management. The traditional ranking of financial performance was based on simple factors such as financial returns, capital return, and profit return (Orlitzky et al., 2003). However, financial performance ranking in this way is not possible to accurately describe institutions for pursuing high financial performance. Non-financial criteria such as customer satisfaction, labor and community relations are vital to the success of a bank's strategy because only the use of capital return and profit return for ranking of financial performance is not possible. It neither offers investors the highest return nor proves which one has the most profit (Singla & Shveta, 2019).

2.4.3. Necessity of Financial Performance Evaluation

Accounting profit stands as a conventional benchmark for evaluating performance, holding immense significance for investors, shareholders, managers, creditors, and securities analysts. Its widespread usage among financial information users stems from the accessibility of necessary data and the ease of associated calculations. Researchers have consistently highlighted the value of accounting profit and the insights it provides, aiding users significantly in their decision-making processes. Jennings and collaborators delved into the informational value of various accounting profit formats, revealing that regardless of its form, profit per share remains a valuable metric for users (Giulio et al., 2008).

2.4.4. Financial Performance Evaluation Models

Financial performance evaluation models can be classified into several categories based on their approach and focus; these categories can be listed as follows:

2.4.4.1. Ratio-Based Models

Ratio-Based Models are fundamental tools in financial performance evaluation, employing various ratios derived from financial statements to assess a company's health

and efficiency. These models cover different aspects of a company's operations and financial structure, providing insights into its strengths, weaknesses, and overall performance.

These ratios can be listed as below (Bottazzi et al., 2008):

Liquidity Ratios: These ratios evaluate a company's ability to meet short-term obligations. The Current Ratio and Quick Ratio (acid-test ratio) measure the company's ability to cover immediate liabilities using its current assets.

Leverage Ratios: These ratios assess the company's debt levels and its ability to manage debt. Debt-to-Equity Ratio, Debt Ratio, and Interest Coverage Ratio measure the extent of debt used by the company and its ability to service that debt.

Efficiency Ratios: These ratios analyze how well a company utilizes its assets and resources to generate sales and profits. Inventory Turnover Ratio, Accounts Receivable Turnover, and Asset Turnover Ratio assess the effectiveness of asset utilization.

These ratios are pivotal in financial analysis as they provide a snapshot of a company's financial position, aiding stakeholders in making informed decisions regarding investment, lending, or strategic planning. Each ratio offers unique insights into different aspects of the company's operations and financial position (Giulio et al., 2023).

2.4.4.2. Cash Flow-Based Models

Cash Flow-Based Models focus on a company's cash flow patterns, providing insights into its liquidity, operational efficiency, and financial position. These models rely on metrics derived from a company's cash flow statement to evaluate its performance; these ratios can be listed as below (Gunay & Ecer, 2020):

Operating Cash Flow Ratio: This ratio assesses a company's ability to generate cash from its core operations. It compares operating cash flow to net sales, highlighting the efficiency of converting sales into cash.

Free Cash Flow: Free cash flow measures the cash generated by operations after accounting for capital expenditures. It reflects the cash available for expansion, debt repayment, dividends, or other purposes.

Cash Conversion Cycle: This metric evaluates the time it takes for a company to convert its investments in inventory and other resources into cash from sales. It includes the days inventory outstanding, days sales outstanding, and days payable outstanding.

Cash Flow Adequacy: This analysis determines whether a company generates enough cash to cover its operational and investment needs. It assesses whether cash flow from operations adequately covers capital expenditures and debt service requirements.

Operating Cash Flow to Total Liabilities Ratio: This ratio shows the company's ability to repay its liabilities using cash generated from operations. It measures the coverage of total liabilities by operating cash flow.

Cash Flow-Based Models offer valuable insights into a company's ability to generate cash, which is crucial for meeting short-term obligations, funding operations, and supporting growth initiatives. Analyzing cash flows helps stakeholders assess the company's financial sustainability and management's efficiency in utilizing cash resources (Barua1 & Anup Kumar, 2015).

2.4.4.3. Integrated Performance Models

Financial reporting purposes are more at the request of external users. The main goals of financial reporting are to express the financial status and performance of the organization to people outside the organization to help them make financial decisions. One of the most important motivations for people to invest is to gain profit and wealth. The main goal of any business is to create value for its owners. Creating value and increasing shareholders' wealth in the long term is also considered among the goals of economic enterprises, and increasing wealth will only be achieved as a result of optimal performance (Gudielet al., 2018). Certainly, the goal of investors to invest in a company is to get a return commensurate with the investment. If the organization is successful in creating value, not only the investment and internal people of the company, but also on a wider level, the society will benefit from this value, considering that shareholders and creditors give their limited financial resources to specialized economic enterprises. Economic enterprises need to know performance evaluation criteria and indicators. In this approach, in addition to using the information included in the financial statements, market information is also used so that the evaluations are more relevant (Balanova, 2016).

Integrated Performance Models combine various financial metrics, ratios, and evaluation methods to provide a comprehensive analysis of a company's overall financial position and performance. These models integrate multiple aspects of financial evaluation into a cohesive framework:

Models that can be considered in this method are listed below:

Balanced Scorecard: This model evaluates financial performance alongside non-financial aspects like customer satisfaction, internal processes, and learning and growth. It uses a mix of financial and non-financial indicators to provide a balanced view of the company's performance (Frigo & Krumwiede, 2000).

Value-Based Management (VBM): VBM aligns a company's management strategies with shareholder value creation. It focuses on maximizing shareholder wealth by assessing financial metrics, such as economic value added (EVA) or market value added (MVA) (Malmi & Ikaheimo, 2003).

Dashboards and Key Performance Indicators (KPIs): These models utilize visual representations and key metrics to monitor and measure financial performance in real-time. They condense complex financial data into easily interpretable formats for quick decision-making.

Activity-Based Costing (ABC): ABC assigns costs to specific activities, providing insights into the accurate cost drivers within an organization. By analyzing costs at the activity level, it enhances cost allocation and management (Mahal & Hossain, 2015).

Risk-Adjusted Performance Measurement: This approach evaluates performance while considering the level of risk associated with various financial decisions. It factors in risk measures like the Sharpe ratio or Treynor ratio to assess performance against risk exposure (Modigliani, 1997).

Integrated Performance Models offer a holistic view of a company's financial performance by considering various dimensions and factors beyond traditional financial metrics. By integrating both financial and non-financial aspects, these models provide a more comprehensive understanding of a company's overall health and aid in strategic decision-making.

2.4.4.4. Predictive Models

Predictive Models for financial performance evaluation focus on forecasting future financial outcomes based on historical data, statistical analysis, and predictive analytics. These models use various techniques to anticipate future financial metrics (Giot & Petitjean, 2011):

Time Series Analysis: It examines patterns in historical financial data over time to forecast future trends. Techniques like moving averages, exponential smoothing, and autoregressive integrated moving average (ARIMA) help predict future financial

performance based on past patterns.

Regression Analysis: Regression models analyze the relationship between independent variables (such as sales, expenses, economic indicators) and a dependent variable (like profit or stock price). These models estimate the impact of various factors on financial outcomes to make future predictions.

Machine Learning Algorithms: Advanced algorithms like decision trees, random forests, neural networks, and support vector machines are employed to predict financial performance. These models can handle large datasets and complex relationships among variables, providing more accurate predictions.

Scenario Analysis and Sensitivity Analysis: These approaches assess the impact of different scenarios or changes in variables (like interest rates, market conditions) on financial outcomes. By simulating multiple scenarios, they help identify potential risks and opportunities for the company's financial performance.

Monte Carlo Simulation: This method generates multiple possible outcomes by modeling various scenarios using random sampling techniques. It provides a range of potential future financial results, considering uncertainties and risks.

Predictive Models in financial performance evaluation assist in strategic planning and decision-making by offering insights into potential future scenarios. By analyzing historical data and applying statistical and computational techniques, these models help organizations anticipate and prepare for different financial outcomes and risks.

2.4.4.5. Profitability Decomposition Models

Profitability Decomposition Models are used to break down and analyze the components contributing to a company's profitability. These models aim to understand the sources and drivers of profit, dissecting it into various elements for deeper analysis. Several key approaches within this category include (Kumbhakar & Lien, 2010):

DuPont Analysis: DuPont analysis breaks down return on equity (ROE) into its fundamental components: net profit margin, asset turnover, and financial leverage. By examining these components individually, it offers insights into how efficiently a company generates profits from its operations, uses its assets, and manages its financial structure.

Residual Income Models: These models evaluate the residual income of a firm by subtracting the equity charge from net income. The equity charge represents the

opportunity cost of shareholders' investment. By decomposing the income into residual and equity charge, it assesses the excess or deficit of actual income relative to the required return.

Economic Value Added (EVA): EVA measures a company's financial performance by determining the surplus profit generated after considering the cost of capital. It decomposes profits by assessing how much value a company adds above the cost of financing its operations and investments.

Decomposition of Profit Margins: This approach dissects various components of profit margins (like gross, operating, and net profit margins) to understand the drivers behind changes in margins. It involves examining factors impacting revenue, costs, and expenses to identify areas contributing to changes in profitability.

These models allow for a detailed analysis of a company's profitability by dissecting it into its underlying components. By examining each element separately, organizations gain a deeper understanding of the factors influencing their overall profitability and can focus on improving specific areas to enhance overall financial performance.

2.4.4.6. Market-Based Models

Market-Based Models of financial performance evaluation rely on market indicators or factors related to a company's stock and market behavior. These models assess a company's performance by examining its relationship with the broader market and investors' perceptions. Some common market-based models include (Ergin, 2012):

Tobin's Q: Measures the market value of a company concerning its assets' replacement cost. It evaluates whether a firm's assets are overvalued or undervalued by the market.

Market-to-Book Ratio: Compares a company's market value to its book value (shareholders' equity) and reflects the market's perception of the company's growth prospects and asset utilization.

Market Capitalization: Calculates a company's total market value by multiplying its stock price by the number of outstanding shares. It's a measure of a company's size and investors' perception of its future growth potential.

Price-Earnings Ratio (P/E Ratio): Compares a company's stock price to its earnings per share, indicating how much investors are willing to pay for each dollar of

earnings. It reflects market sentiment about a company's profitability and growth prospects.

Earnings Yield: The reciprocal of the P/E ratio, it shows the earnings per share relative to the stock price. It offers insights into the company's earnings performance in relation to its market value.

These models focus on market dynamics and investors' perceptions, providing a perspective on how the market values a company in relation to various financial indicators and market behaviors.

2.4.4.7. Profitability Ratio Models

Profitability is a fundamental aspect of a company's financial success, reflecting its ability to generate earnings and returns on its operations and investments. It's a crucial metric for stakeholders, including investors, creditors, and management, as it indicates a company's efficiency and effectiveness in utilizing its resources to generate profits. Profitability encompasses various financial ratios and measures that assess a company's ability to generate earnings relative to its costs and expenses. Key profitability metrics include (Aulidiah & Oktafiani, 2023):

Gross Profit Margin: This measures the percentage of revenue that exceeds the cost of goods sold, indicating how efficiently a company produces goods or services.

Net Profit Margin: It evaluates the percentage of revenue remaining after deducting all expenses, including taxes and interest. It provides insights into a company's overall operational efficiency.

Return on Assets (ROA): ROA assesses a company's ability to generate earnings from its assets, indicating how effectively it utilizes its resources to generate profits.

Return on Equity (ROE): ROE measures a company's ability to generate profits from shareholders' equity. It reflects how well a company is using investors' funds to generate returns.

Earnings Per Share (EPS): EPS calculates a company's profitability on a per-share basis, representing the portion of a company's profit allocated to each outstanding share of common stock.

Profitability measures are essential for evaluating a company's financial performance, competitiveness, and long-term sustainability. Higher profitability ratios generally indicate efficient management and a strong financial position, which can attract investors and support business growth.

2.4.5. Financial and Non-financial Performance

Over the last two decades, the business world has seen an increase in non-financial disclosures. In many countries, some of these disclosures are mandatory. For example, in 2014, the European Commission mandated the disclosure of certain social aspects for certain large companies with more than 500 employees, operating in 28 EU countries. Recently, a lot of pressure has been imposed on the financial sector in order to disclose certain information, which is called financial capacity (Allen et al., 2000).

Research indicates that financial inclusion has a direct role in the economic development of any country (Jehani, 2014) and ensures the effective allocation of productive resources, thereby reducing capital costs. The first studies of researchers in relation to short-term performance date back to about 50 years ago. In subsequent studies, almost all researchers acknowledged the existence of abnormal short-term returns in most capital markets and tried to investigate the influencing factors on this financial issue (Oztekin et al., 2015). Since the common financial theories as well as the efficient market theory could not provide acceptable explanations in this regard, the study of the effect of other factors was prioritized and various theories and hypotheses were proposed in this regard. Organizational capital (investment in key talents) - similar to physical capital - is a very valuable asset for the company, which lies in the ability of the company's chief executive officer. It seems that companies have a strong desire to hire external executives, especially those who have held CEO positions elsewhere and those who have general management skills (Kastadioo et al., 2013).

All management jobs require the application of skills. Although the three skills (technical, human and perceptive skills.) appear to be essential in performing some tasks, their relative value varies across different levels of management. Managers at supervisory levels require considerable technical skills because their duties often require them to guide or train their subordinates. On the other hand, high-level managers of organizations do not need technical skills, but decision-making, planning and organizing tasks require them to be equipped with considerable perceptive skills. Human skills are almost required for all tasks at all levels of management, because managers, regardless of the type of tasks or the level of responsibility and position, deal with human beings in order to attract cooperation and influence their behavior, they must have human skills. Therefore, today, in the management of organizations, emphasis on human skills has become a special priority. Acquiring perceptual (or conceptual) skills requires teaching theories of

behavioral sciences, especially theories of organization, management and decision-making and their practical application (Bose et al., 2017).

2.4.6. Factors Affecting Financial Performance

A comprehensive review of the research conducted on the financial and non-financial determinants of the financial performance of an organization or company shows that many organizational factors can affect the financial performance of the company, which can be liquidity, leverage, asset utilization, company size, market share position noted (Omondi & Muturi, 2013).

Liquidity:

Liquidity is an important factor for the company in its ability to fulfill its obligations using liquidity and current assets that can be immediately converted into liquidity. The current ratio is measured by current assets to current liabilities, which is 2:1 The ratio of 2:1 shows the company's ability to convert assets into cash, which can form part of working capital. Working capital is one of the vital tools to achieve the financial performance of the company. The company's ability to convert assets into cash is equivalent to its ability to manage working capital, which must be kept at normal levels to prevent the company from going bankrupt. Liquid assets are beneficial for the company in many times, because the external financial flow is unavailable for the company, or the cost of using external financial resources is more than liquid assets to finance expenses and investments. Comparative evaluation of companies can be obtained by using current assets and various current liabilities relative to financial performance.

Use of assets:

The use of assets as an organizational factor can play a role in determining the company's financial performance, based on the clarity of assets that are necessary for the production process for the company's financial performance. Examining the use of assets is very important in identifying and measuring the ability and different roles of these assets owned by the company in ensuring the achievement of financial returns. If the company's assets are not used correctly and effectively, it can lead to poor financial performance of the company, such as losses in the accumulation of profits from investments. According to the findings of Fleming et al. (2005), agency costs increase when assets are not used effectively and efficiently, which is an indicator of mismanagement in the interests of business owners. In the research conducted by Okawa

(2012) on investment in fixed assets and its relationship with company profitability, he showed that there is a positive relationship between the two variables. Weil Zou and Zou (2013) showed in their research that there is a significant relationship between structuring and financial performance of the company. In addition, the study conducted by other researchers have also confirmed the significant impact of the effective and efficient use of assets on the company's financial performance (Wu et al., 2010; Jose et al., 2010 and Sima et al., 2011).

Size of the company:

Researches on the effect of company size on financial performance have reached different results. Parwan (2012) found that there is a negative relationship between company size and financial profitability of the company. This research states that due to the presence of high market value, companies can set higher prices for their products and services. In addition, the high profitability of the company can be the result of the economy of the company's negotiation power with suppliers. Also, several researchers have investigated the relationship between company size and financial performance. For example, the research conducted by Vijay Kumar and Tamizheslan (2010) proved that there is a positive and significant relationship between company size and financial performance. Focusing on the profitability aspect of financial performance, this research found that large commercial companies have a lot of resources and ability to earn profits for the long term. Quantitative results and analysis conducted on 3035 Greek companies by Papadognas (2007) showed that company size has a positive and significant relationship with company profitability. Lee (2009) investigated the sources of profitability of the company and showed that one of the strategic sources of profitability of the company is the size of the company, which has a positive effect and plays an important role in opening cash flows and the financial performance of the company in general.

Company age:

The studies conducted on the age of the company (Batra, 1999; Lamkin and Das, 1999) have concluded that the age of the company can affect its financial performance. Researchers have come to the conclusion that operational organization in old companies are less flexible and cannot make appropriate changes in their environment. New and small companies have more market share and despite various weaknesses such as lack of capital, brand name, and company reputation, they still gain more market share than old companies. In relation to firm age, older firms have more experience, benefit from greater

learning benefits, and have no new commitments, and therefore can perform better. Established companies can also make the most of their reputation, which helps them have higher sales margins. On the other hand, long-standing companies are prone to stagnation, and the bureaucratic organization that is related to the age of the company can affect their performance (Al-Majli et al., 2012).

The effect of leverage on the company's financial performance:

Deciding on the capital structure of a company has been the subject of research in many articles and theories. Influence can play an important role in these issues. The research conducted on the effect of leverage on the company's financial performance can have many results. Margaret and Pilaki (2010) in research on the relationship between capital structure, stock ownership and financial performance of the company found that leverage has a positive relationship with the performance of the company. Whitsunti and Tangura (2015) conducted research in this regard and concluded that leverage has a negative relationship with company performance, but they also found that various factors can mediate the relationship between them. During research, Will (2008) analyzed the impact of a country's institutional environment on the relationship between leverage and company financial performance and showed that the efficiency of a country's legal system can affect this relationship. In the conclusion of his research, he wrote that in countries that have an efficient legal system, the negative impact of leverage on the company's financial performance has decreased (Nicolas, 2015).

The resource-based view (RBV) states that differences in firms' performance are due to resource ownership. The resource-based view of the company is not only a theoretical structure, but also plays a role in the formulation of the company's long-term strategy. The main focus of resource-based views is on the use and reliance on the effective use of resources to create a company's competitive advantage (Isanzo, 2015). However, these resources must be valuable, scarce, not easily imitated, and irreplaceable. Anderson (1988) found in his research that the efficiency of the business company in general is rooted in the acquisition of market share, which is also dependent on the company's resources. When the companies' resources or their products are superior and better than their competitors in the market and in the minds of customers, these companies have a stronger market position than their competitors. The resources of a company play a crucial role in gaining a competitive advantage, ultimately contributing to improved financial performance. For instance, the sales performance of the company, a fundamental factor for achieving enhanced financial results, is directly influenced by the company's

market share position. (Saad and Zang, 2016).

2.5. Literature Review

Several studies have demonstrated a positive correlation between CSR and profitability. For instance, Waddock and Graves (1997) found that companies with strong CSR commitments tend to experience long-term financial benefits. This positive relationship has been supported by McWilliams and Siegel (2000) and Margolis and Walsh (2001), who argue that CSR can enhance brand reputation and customer loyalty, ultimately leading to increased profitability. However, the relationship between CSR and profitability is not universally agreed upon. Some studies, like the one by Margolis and Walsh (2003), have reported mixed findings, suggesting that the impact of CSR on financial performance depends on various factors, including industry, region, and the specific CSR activities undertaken.

Sheikh (2021) investigated the relationship between corporate performance and corporate social responsibility and corporate dividend payment. Empirical results show that the level of corporate involvement in corporate social responsibility is positively related to the willingness and level of dividends, repurchases and total payments (dividends plus repurchases). However, the positive relationship between CSR performance and corporate payouts is significant only for firms operating in low competition markets. In highly competitive markets, corporate social responsibility performance does not seem to be significantly related to corporate payouts.

In their research, Smith et al. (2020) explored how corporate social responsibility (CSR) practices influence profit margins. Their findings indicated that companies actively involved in CSR tend to achieve higher profit margins. The study highlighted the potential financial benefits of CSR activities.

Bardos et al. (2020) examined corporate social responsibility, product market competition, and corporate value. Using a proprietary database, they found that observable corporate social responsibility, such as environmental and community involvement, positively affects product market competitiveness, especially for standardized goods and in competitive industries, and this effect is more pronounced for product quality attributes. . Furthermore, we find that CSR indirectly increases firm value through improving product market competitiveness. The result showed that product market competition is a channel through which corporate social responsibility creates

corporate value.

Pham et al. (2020) investigated the effect of competition in the product market on the payment of dividends. They use a sample of ASX200 non-financial companies, including 4,272 observations over the period 1992-2015. To address the endogeneity problem, the authors use the event of the Australia-US Free Trade Agreement (AUSFTA), which entered into force on 01 January 2005. They find that firms operating in competitive markets are likely to pay higher dividends and repurchase more stock to reduce agency costs. The positive relationship between industry competition and dividends is stronger in firms with the same CEO and chairman and among firms with a higher market-to-book ratio and a higher standard deviation of stock returns.

Chen and Wang (2019) examined market reactions to corporate social responsibility (CSR) events. Their analysis demonstrated that firms engaging in CSR initiatives experience positive market responses, particularly in terms of stock prices and investor sentiment.

Jia (2019) investigated corporate social responsibility activity and company performance with the strategic moderating role of competition in the capital market. Using data from 3401 annual observations of publicly traded companies in China for the years 2009-2015, this study shows that CSR enhances firm performance when the firm's strategy emphasizes value allocation over value creation. The interaction effect of corporate social responsibility and strategic emphasis also varies with the level of competition in the industry. The results not only contribute to the literature on the relationship between CSR and firm performance, but can also inform firms' resource allocation decisions and enable them to derive instrumental value from CSR initiatives.

Jones and Brown (2018) conducted a longitudinal study to investigate the long-term impact of corporate social responsibility (CSR) on financial performance. Their research revealed that sustained CSR efforts can lead to improved financial performance over time.

Singla and Singh (2018) investigated the relationship between board oversight, product market competition and firm performance. A sample of 3854 firm-year observations was used over a 10-year period (2007-2016). The industry method and year fixed effect regression have been used to test the hypothesized relationships. Empirical findings show that board monitoring ads negatively to firm value. The results also show that product market competition has an insignificant moderating effect on the effectiveness of board supervision in India. However, a deeper analysis shows that

competition in the product market complements the weak supervision of the board of directors of the business group companies. Moreover, the effectiveness of board supervision (which is relatively stronger in business group companies) is weakened by the increasing level of product market competition for independent companies.

Kim and Lee (2016) investigated how market competition influences corporate social responsibility (CSR) strategies. They found that firms in highly competitive markets tend to adopt more extensive CSR practices as a strategic response to gain a competitive edge.

Sheikh (2018) investigated the effect of market competition on corporate social responsibility and corporate leverage. The results showed that, in particular, corporate social responsibility has a negative effect on corporate leverage only when competition in product markets is high. When competition is low, CSR has no effect on corporate leverage. Also, the results show that the impact of corporate social responsibility is driven by society. Further analysis also shows that CSR increases the value of the firm only when competition is high.

Lema et al. (2018) examined the relationship between institutional ownership, product market competition and earnings management according to the evidence obtained from international data. They used data on non-financial companies in 41 countries over the period 1995-2016. The results obtained from their research showed that after controlling for profit management at the company level, which is recorded directly with industry and country indicators, there is no evidence of the existence of a relationship between accrued profit management and institutional ownership, which significantly affects profit management. Intensifies an obligation. Also, the results showed that competition in the product market has a positive relationship with accrual profit management, but in terms of the level of significance, it is observed only when the Herfindahl-Hirschman index is used. Finally, product market competition has a significant negative relationship with real profit management, and only when we use a limited number of industrial companies, a positive relationship between product market competition and real profit management is found. In addition, it seems that the competition in the product market aggravates accrual profit management and leads to a decrease in real profit management.

Liu et al. (2018) examined product market competition, state ownership, corporate governance, and firm performance. They found that higher PMC was associated with lower firm performance. The authors found that good corporate governance practices

mitigate the negative impact of higher PMC on firm performance. The association between higher PMC and lower performance is weaker for firms controlled by SOEs compared to non-SOEs. Furthermore, the effect of SOEs adjustment on the relationship between PMC and lower performance is greater for firms with good corporate governance practices compared to firms with poor corporate governance practices.

Rao and Tilt (2015) conducted a meta-analysis to assess the overall relationship between corporate social responsibility (CSR) and financial performance. Their meta-analysis revealed a positive association between CSR and financial performance across various studies.

Wu and Yang (2014) explored the financial benefits of corporate social responsibility (CSR). Their research indicated that companies that prioritize CSR often experience improved financial outcomes, such as increased profitability and shareholder value.

Laksamana and Yang (2014) in research entitled, product market competition and profit management, investigated the effect of product market competition on profit management based on discretionary accruals and real profit management. The results of their research showed that in the product market with more competition, both types of profit management are less. In other words, there is a negative relationship between product market competition and profit management. They argued that in the studied example, the competitive pressure in the product market reduces the conflict of interest and prompts the managers to act in line with the interests of the shareholders.

Li and Marquis (2013) delved into the role of institutional logics in shaping corporate social responsibility (CSR) actions. They highlighted how firms navigate and align their CSR efforts with prevailing institutional logics.

Zhang and Zhu (2012) examined the impact of corporate social responsibility (CSR) on market reactions, specifically in response to earnings surprises. Their findings suggested that CSR engagement can influence market responses to earnings surprises.

Datta and Singh (2013) in their article titled Product Market Power, Industry Structure and Corporate Profit Management investigated the relationship between product market competition and the degree of profit management. In their research, they assumed that there is a strong relationship between the product pricing power of companies and the degree of profit management and between the level of competition in the industry and the degree of profit management in the industry. The results of their research revealed that companies with lower product pricing power use accruals to show

more profit. Also, the results of their research showed that there is a positive relationship between the level of competition in the product market in the industry and profit manipulation.

CHAPTER III

RESEARCH METHOD

3.1. Introduction

The third chapter of this research is dedicated to research methodology. Achieving scientific knowledge will not be possible unless it is done with the correct methodology. Scientific methodology is a system of rules and methods on which research is based and claims about the subject of research are evaluated. The method is a set of measures that are used to know the truth and avoid slipping. The method is a requirement for gaining knowledge and a tool for moving from unknowns to information. The scientific method of research refers to all the steps that are used in collecting and analyzing information to reach a certain goal (which is to reach the truth). The purpose of the scientific method is to discover the truth. In terms of methodology, research is the application of scientific methods in solving a problem or answering a question.

Choosing the appropriate research method depends on the goals, nature and topic of the research and implementation possibilities, and the goal of the research is to answer the research questions accurately and easily (Khaki 2018). In order for the results of the research to be valid, an appropriate method must be used in the research, because the wrong choice leads to wrong conclusions. In this chapter, first the research method is described, then the hypotheses are presented. In the following, the investigated variables and hypothesis testing method, statistical population, statistical sample size and other related issues are explained. In the end, the desired statistical methods for data analysis are stated.

3.2. Research Subject

Scientific research always starts with some kind of question and its purpose is to find the answers to the questions using the scientific method. The subject of the research is in the form of a question or a statement that states what relationship exists between the variables; expressing the question and topic of the research is one of the most important and perhaps the most difficult stages of scientific research. If someone wants to answer a research question, he should explain what that question is, what he intends to do, and what questions he is trying to find answers to (Farji, 2009). The current research seeks to

obtain answers to the following questions:

- What is the relationship between corporate social responsibility and profitability?
- What effect does product market competition have on the relationship between corporate social responsibility and profitability?

Note: It should be noted that different criteria are used for each variable, so a separate measurement was done for each of the criteria.

3.3. Research Hypotheses

- There is a relationship between corporate social responsibility and profitability.
- Product market competition moderates the relationship between corporate social responsibility and profitability.

3.4. Research Methods

In terms of purpose, this research is of the type of experimental applied research; because its results directly help the users of accounting information, and in terms of its nature, it is a part of descriptive-correlational research, which describes the current situation on the one hand, and on the other hand, studies the characteristics and traits of variables and It examines the relationship between variables through regression analysis. Also, in terms of time, it is post-event, because in this research, the variables have already been obtained, and in terms of the type of reasoning, it is inductive, because it obtains a general result by examining partial observations, and in terms of theory, it is in the field of proof-of-concept research.

3.5. Statistical Population of the Research

The research's statistical population comprises all companies listed on the Tehran Stock Exchange, considering the following criteria:

- Companies studied from 2011 to 2021 maintained their trading symbol

without removal from the stock exchange board, and their financial year concludes on March 20 (as per the Iranian calendar, starting from March 21).

- Companies selected for the study sustained consistency in their financial year and operational activities throughout the considered periods.
- Availability of essential financial information, particularly accompanying notes to financial statements, was a requirement.
- Companies under study displayed continuous activity, ensuring uninterrupted trading of their shares without a break exceeding six months.
- Entities involved in insurance, banking, investment, and financial-monetary intermediation were excluded due to their distinct operational nature.
- Each industry category under consideration included a minimum of ten active companies.

The limitations outlined for the research population selection criteria serve to ensure the reliability and validity of the study's findings. By focusing on companies listed on the Tehran Stock Exchange from 2011 to 2021, with consistent trading symbols and financial year conclusions, the research aims to establish a stable and consistent dataset. Excluding entities in insurance, banking, investment, and financial-monetary intermediation helps maintain homogeneity within the sample, allowing for more accurate comparisons across industries. Moreover, the inclusion of a minimum of ten active companies in each industry category enhances the representativeness of the population and enables meaningful industry-specific analysis. Overall, these limitations are essential for ensuring the robustness and credibility of the research findings.

Following the exclusion of companies that did not meet the outlined criteria within the statistical population, the remaining dataset comprised 155 companies. Over the specified period, a comprehensive analysis was conducted on a total of 1705 observations, representing the cumulative company-year data examined within the study timeframe.

The total number of industries studied was nine. The population for each industry is briefly presented in the table below.

Table 2.

Statistical Population of the Research by Industry

industry	Number of Company
Automotive and Spare Parts	24
Cement, Lime, and Plaster	20
Chemical	13
Food	23
Machinery and Equipment	13
Metal and Metal Products	18
Mining	11
Pharmaceutical	20
Tiles and Ceramics and Non-Metallic Minerals	13
Total	155

3.6. Data Collection Method

The research adopts a comprehensive and multi-faceted approach to data collection, ensuring the reliability and authenticity of the information gathered. The methodology involves two main phases: literature review and primary data collection.

Phase 1: Literature Review

In the initial stage, the research undertakes an extensive review of existing literature in the field. The review encompasses scholarly articles, authoritative books, scientific and research magazines, as well as student theses. A thorough exploration of reputable internet sites specializing in the subject matter is also conducted. This literature review serves as the foundation for understanding the current state of knowledge in the research domain.

The sources selected for review are carefully curated to ensure the inclusion of the most recent and relevant studies. Special attention is given to peer-reviewed journals, academic publications, and well-established research databases to guarantee the credibility and authenticity of the information gathered.

Phase 2: Primary Data Collection

The subsequent phase of the research involves the collection of primary data,

focusing on acquiring authentic information directly from the stock market, financial statements, and accompanying notes of the relevant companies. To ensure accuracy and consistency, the data extraction process employs both Rehavard Novin software and the Codal (Comprehensive Database of All Listed Companies) website as official website of the stock exchange organization.

The financial statements of selected companies are meticulously analyzed, and relevant data points are extracted and classified. The use of The Codal website as the stock exchange organization website streamlines the extraction process, enhancing efficiency and minimizing the likelihood of errors. The Rehavard Novin software serves as a supplementary source, providing additional insights into market dynamics and company performance.

Once all necessary data is compiled, it is organized and classified using Excel software. The comprehensive dataset includes variables crucial for the research objectives. Excel formulas are applied to calculate various financial metrics and ratios, ensuring consistency and accuracy in the derived values.

The final step in the data collection process involves the analysis of the compiled dataset using EViews version 10 software. EViews is chosen for its robust statistical and econometric capabilities, allowing for sophisticated modeling and in-depth analysis of the collected data.

3.7. Research Tools

First, the required data are collected using Rahavard Novin software and Codal website. In the next step, calculations of the variables are done by Excel software, and then EViews version 10 software is used for statistical analysis.

3.8. Research Variables

Research variables; It consists of dependent, modifier, independent and control variables. This section describes these variables.

3.8.1. The Dependent Variable

In this study, profitability is the dependent variable and ROA and Tobin's Q were used to measure profitability.

Profitability (PRO)

Profitability in this research is considered as a dependent variable of the research that the following criteria are used to measure it:

Return on Assets (ROA):

Return on Assets (ROA) is a financial metric that measures a company's ability to generate profit from its total assets. This ratio provides insight into how efficiently a company utilizes its assets to generate earnings. ROA is a key indicator for investors, analysts, and stakeholders interested in understanding a company's operational efficiency and profitability in relation to its asset base.

The formula for calculating Return on Assets is:

$$ROA = \frac{Net\ Income}{\text{Total Assets}}$$

where:

Net Income is the company's net profit after deducting all expenses, interest, and taxes.

Total Assets represents the company's total assets at the end of the fiscal year. ROA is expressed as a percentage, indicating the proportion of net income generated for each dollar of average total assets. A higher ROA suggests that a company is more efficient in utilizing its assets to generate profit.

Interpretation of ROA:

High ROA: A higher ROA indicates that the company is effectively using its assets to generate profit, reflecting strong operational efficiency.

Low ROA: A lower ROA may suggest inefficiency in asset utilization, which could be due to operational challenges or high asset investment without proportionate returns.

ROA is valuable for comparing the performance of companies within the same industry or sector. It helps investors and analysts assess the management's ability to generate profit relative to the size of the asset base, providing valuable insights into a

company's financial health and efficiency.

Tobin's Q Ratio:

Tobin's Q Ratio, named after economist James Tobin, is a financial metric that assesses the relationship between the market value of a company's stock and total assets value. This ratio is used to evaluate whether a firm's stock is overvalued or undervalued in the stock market.

The formula for Tobin's Q is:

$$\text{Tobin's Q} = \frac{\text{market value of a company's stock}}{\text{total assets}}$$

Interpretation of Tobin's Q Ratio:

Q Ratio = 1: When Q equals 1, it suggests that the market values the company's assets fairly, and there is a balance between the market value and total assets.

Q Ratio > 1: A Q ratio greater than 1 indicates that the market values the company's assets higher than their replacement cost. This may suggest that the market perceives the company as having valuable intangible assets, such as brand recognition or innovation.

Q Ratio < 1: A Q ratio less than 1 implies that the market values the company's assets lower than their replacement cost. This could indicate that the market is undervaluing the company, possibly due to concerns about its future profitability or operational efficiency.

Tobin's Q is often used in financial research and analysis, especially in the field of corporate finance and investment, to gain insights into the market's perception of a company's asset value and potential for future growth.

3.8.2. Modifier Variable

The modifier variable in this study is Product Market Competition (PMC) and is explained below.

Product Market Competition (PMC)

In this research, to measure the competition in the product market, the Herfindahl Harishman index are used, this criterion is based on the classification of the market based on the United States Trade Commission in the 80s and are used as follows:
In this study, the measure of product market competition is the Herfindahl-Hirschman index (HHI), which is calculated by summing up the sales- based square market shares of all firms in a given industry. This index uses data related to all active companies and the following formula is used to calculate it:

$$HHI_{j,t} = \sum_{i=1}^{n_{j,t}} S_{ijt}^2$$

Where S_{ijt} is the market share of firm i in industry j in year t, and n_{jt} denotes the numbers of firms in industry j in year t.
The US Trade Commission used the index to classify the market in the 1980s as follows:

HHI < 10% or 1000: Competitive market
10% ≤ HHI ≤ 18% or between 1000-1800: Moderate market
HHI > 18% or 1800: Non-competitive market

The Herfindahl-Hirschman Index (HHIi) measures the degree of industry focus. In this index, the higher the calculated index, the more concentration and less competition in the industry, and vice versa.

In this study, the industries are classified using the classification codes specified by Tehran Stock Exchange.

3.8.3. Independent Variable

The independent variable in this study is Corporate Social Responsibility (CSR) and is explained below.

Corporate Social Responsibility (CSR)

The independent variable in this research is corporate social responsibility (CSR), assessed using the content analysis method as established by Maran Jori and Alikhani

(2014). Content analysis involves categorizing text into predefined groups, widely employed in research focusing on social responsibility disclosure due to its structured approach in analyzing extensive unstructured data (Islam and Degan, 2008).

To calculate the CSR variable for this study, a thorough literature review was conducted to identify widely used checklists for scoring CSR. The chosen checklist is a comprehensive measure based on literature, encompassing 43 types of information related to environmental and social aspects. Notably, research studies by Aribi and Zhao (2010) and Gao et al. (2005) have utilized this checklist as a sample. The checklist includes a range of CSR indicators, such as environmental sustainability practices, community engagement initiatives, labor practices, and ethical business conduct. By employing this checklist, the study ensures a standardized and comprehensive assessment of CSR activities across the selected companies.

In adapting the checklist for scoring CSR in Iranian companies, the original list of 43 types of information related to environmental and social aspects was refined to 39 items. This adjustment was made to better suit the context and specific requirements of the Iranian corporate landscape. Notably, research studies by Maran Jori and Alikhani (2014) have utilized this checklist as a measurement for CSR in similar contexts. By using this refined checklist, the study ensures a tailored and relevant assessment of CSR practices within the Iranian business environment.

After establishing the checklist, specific coding rules were outlined. Each subsection of disclosure was meticulously defined, ensuring precise identification of sentences related to each part. The total count of disclosed sentences within each subsection of the disclosure segments reflects the extent of environmental and social information disclosed by the company. The detailed disclosure checklist is presented in table 3:

Table 3.

Checklist for Disclosure of Environmental and Social Information

Disclosure Items	Subsection
Environmental Issues	– Pollution Control – Prevention of Environmental Damage – Recycling or Prevention of Waste – Conservation of Natural Resources – Research and Development – Environmental Policy – Investment in Environmental Projects – Other Environmental Issues
Products and Services	– Product Development , Market Share – Product Quality , ISO – Product Safety and Health – Cessation Of Production – Other Products and Services
Human Resources	– Number of Employees – Monthly Salary, Cash Rewards and Benefits – Employee Ownership Share – Retirement and Termination Benefits – Occupational Health and Safety – Staff Training and Development Programs – Sports and Welfare – Employee Loans or Insurance – Employee Morale and Communication – Other Human Resources
Customers	– Customer Health – Customer Complaints and Satisfaction – Late Payment Policy for Specific Customers – Provision of Facilities and After-sales Service – Meet Customer Needs – Other Customers

Community Responsibilities	– Social Investment – Support for Community Activities – Gifts and Charitable Services – Legal Action and Litigation – Religious and Cultural Activities – Other Community Responsibilities
Clean Energy	– Conservation of Energy – Development and Exploration of New Resources – Use of New Resources – Other Energy

Source: (Maran Jori and Alikhani, 2014)

To measure the percentage of social responsibility, the content of the annual report of the board of directors of companies is analyzed, in such a way that each of the proposed indicators is given 1 number and otherwise zero, then the percentage of corporate social responsibility of each Companies are calculated using the following relation (Maran Jori and Alikhani, 2014):

$$\text{Percentage of CSR} = \frac{\text{Number of items disclosed}}{\text{Total number of items to be disclosed}} * 100$$

Note: All items stated in the checklist can be extracted by referring to the financial statements disclosed on the Codal site and reading the notes attached to the financial statements. It should also be noted that the company that does not disclose this information or the information about the variable is not available in the company that index is given the number zero. For example, the number of employees in the company introduction section or the costs related to energy consumption in the costs section, if the company has after-sales service, the relevant information can be extracted by reading the explanatory notes.

3.8.4. Control Variables

Based on the Sheikh (2018) research, the control variables of the research are categorized as follows:

Company Growth (MTB): The Market-to-Book (MTB) ratio is a financial metric that compares a company's market value to its book value. It is calculated by dividing the market value per share by the book value per share. The MTB ratio is also known as the Price-to-Book (P/B) ratio.

Here's the formula for the Market-to-Book ratio:

$$MTB = \frac{\text{Market Value per Share}}{\text{Book Value per Share}}$$

Where:

Market Value per Share is the current market price of one share of the company's stock.

Book Value per Share is the net asset value of the company per share, calculated by subtracting total liabilities from total assets and dividing the result by the number of outstanding shares.

Interpretation:

MTB Ratio > 1: If the MTB ratio is greater than 1, it suggests that the market values the company higher than its book value. This may indicate that investors have confidence in the company's future growth prospects, profitability, or other intangible assets.

MTB Ratio < 1: If the MTB ratio is less than 1, it implies that the market values the company lower than its book value. This might signal that the market has concerns about the company's future performance, profitability, or other factors.

MTB Ratio = 1: When the MTB ratio is equal to 1, the market is valuing the company at its book value. This could mean that the market perceives the company as fairly valued based on its assets and liabilities.

R&D cost Ratio: The Research and Development (R&D) Cost Ratio, also known as the R&D to Total Assets Ratio, is a financial metric that measures the proportion of a company's total assets allocated to research and development activities. It provides insights into how much a company invests in innovation and technological advancement relative to its overall asset base.

Here's the formula for the R&D Cost Ratio:

$$R\&D\ Cost\ Ratio = \frac{\text{R\&D Costs}}{\text{Total Assets}}$$

Where:

R&D Costs represent the total expenses incurred by the company on research and development activities during a specific period. This includes costs associated with creating, developing, and enhancing products, services, or processes.

Total Assets refer to the value of all assets owned by the company.

Interpretation:

High R&D Cost Ratio: A high R&D Cost Ratio indicates that a significant portion of the company's total assets is dedicated to research and development. This may suggest that the company is heavily focused on innovation and is investing a substantial amount in creating new products, services, or improving existing ones.

Low R&D Cost Ratio: A low R&D Cost Ratio implies that the company allocates a smaller proportion of its total assets to research and development activities. This could mean that the company may not be as focused on innovation or that it is more efficient in utilizing its assets for other purposes.

Investors and analysts use the R&D Cost Ratio to assess a company's commitment to innovation and its ability to stay competitive in the market. Companies in technology, pharmaceuticals, and other innovation-driven industries often have higher R&D ratios due to the nature of their business, where continuous innovation is crucial for success.

Capital Asset Ratio: The Capital Asset ratio, also known as the Fixed Assets to Total Assets Ratio, is a financial metric that measures the proportion of a company's total assets represented by its fixed assets. Fixed assets, also referred to as capital assets or property, plant, and equipment (PP&E), are long-term assets with a useful life of more than one accounting period. Examples include buildings, machinery, vehicles, and land.

Here's the formula for the Capital Asset Ratio:

$$Capital\ Asset\ Ratio = \frac{Fixed\ Assets}{\text{Total Assets}}$$

Fixed Assets represent the book value of all long-term, tangible assets owned by

the company. This includes assets that are not easily converted into cash, as they are intended for long-term use in the operations of the business.

Total Assets refer to the sum of all assets, including current assets (e.g., cash, accounts receivable) and non-current assets (e.g., fixed assets, intangible assets).

Advertising Cost Ratio: The Advertising Cost Ratio is a financial metric that measures the effectiveness of a company's advertising expenses in generating revenue. It is calculated by dividing the company's total advertising costs by its total sales during a specific period.

The formula for the Advertising Cost Ratio is as follows:

$$Advertising\ Cost\ Ratio = \frac{Advertising\ Costs}{\text{Total Sales}}$$

Where:

Advertising Costs represent the total amount spent on advertising, including expenses related to marketing campaigns, promotional activities, and other efforts to promote the company's products or services.

Total Sales revenue is the income generated by a business – the number can be found on a company’s income statement.

The result is expressed as a percentage, providing insights into the proportion of total sales revenue that is allocated to advertising expenses. Here's how to interpret the Advertising Cost Ratio:

High Advertising Cost Ratio: A high ratio indicates that a significant portion of the company's revenue is being used to cover advertising expenses. While aggressive marketing efforts can be beneficial for brand awareness and sales growth, a consistently high Advertising Cost Ratio may raise concerns about the efficiency of the company's advertising strategies.

Low Advertising Cost Ratio: A low ratio suggests that the company is spending a relatively smaller percentage of its revenue on advertising. While this may indicate cost-effectiveness in marketing efforts, it could also imply that the company might need to invest more in advertising to boost sales and market share.

The optimal Advertising Cost Ratio varies across industries and depends on factors such as the nature of the products or services, the competitive landscape, and the company's

growth stage. Comparing the ratio to industry benchmarks and historical performance can provide additional context.

Financial Leverage (LEV): Financial Leverage (LEV) expressed as total debt to total assets is a financial ratio that measures the extent to which a company utilizes debt in relation to its total assets. This ratio provides insights into the proportion of a company's assets that are financed through debt rather than equity. It is a variation of the financial leverage ratio that focuses on the relationship between total debt and total assets.

The formula for Financial Leverage (LEV) as total debt to total assets is calculated as follows:

$$Financial\ Leverage\ (LEV)\ = \frac{Total\ Debt}{\text{Total Assets}}$$

Where:

Total Debt includes all interest-bearing obligations, such as long-term debt, short-term debt, and other interest-bearing liabilities.

Total Assets represent the sum of all the company's assets, including current and non-current assets.

Interpretation of Financial Leverage (LEV) as Total Debt to Total Assets:

High Financial Leverage (LEV): A high ratio indicates that a significant portion of the company's assets is financed through debt. While high leverage can amplify returns on equity when the return on assets is greater than the cost of debt, it also exposes the company to higher financial risk. High financial leverage means that a larger portion of the company's assets is backed by debt, and changes in asset values or interest rates can have a substantial impact on shareholders' equity.

Low Financial Leverage (LEV): A low ratio suggests a more conservative capital structure where a smaller portion of the company's assets is funded through debt. While this reduces financial risk, it may limit potential returns on equity. Companies with low financial leverage are generally considered less risky but might miss out on the benefits of leveraging when the cost of debt is low.

Understanding the financial leverage ratio as total debt to total assets is crucial for assessing a company's risk profile, capital structure management, and its ability to meet debt obligations. Investors and analysts use this ratio to evaluate the company's financial health, risk exposure, and the effectiveness of its debt management strategies. It also provides insights into the company's ability to weather economic downturns and

fluctuations in asset values.

Cash Flow Ratio (CashFlow): The Cash Flow Ratio (Operating Cash Flow to Total Assets) is a financial metric that evaluates a company's ability to generate operating cash flow relative to its total assets. It provides insights into how efficiently a company is utilizing its assets to generate cash from its core operating activities.

The formula for the Cash Flow Ratio (Operating Cash Flow to Total Assets) is expressed as:

$$Cash\ Flow\ Ratio = \frac{Operating\ Cash\ Flow}{\text{Total Assets}}$$

Here's a breakdown of the components:

Operating Cash Flow (OCF): This represents the cash generated or used by a company's core operating activities. It includes cash received from customers, payments to suppliers, and other operating expenses. Operating Cash Flow is a crucial measure of a company's ability to generate cash from its primary business operations.

Total Assets: This is the sum of all of a company's assets, including both current and non-current assets. Total assets encompass a wide range of items, such as cash, accounts receivable, inventory, property, plant, equipment, and other long-term investments.

Interpretation of the Cash Flow Ratio (Operating Cash Flow to Total Assets):
Efficiency in Asset Utilization: A higher Cash Flow Ratio indicates that the company is more efficient in generating operating cash flow relative to its total asset base. This could be a positive signal, suggesting that the company is effectively managing its assets to generate cash.

Asset Productivity: The ratio helps assess how productive a company's assets are in contributing to its cash flow. A company with a high ratio is utilizing its assets efficiently to generate cash.

Sustainability of Cash Flow: A consistently high Cash Flow Ratio indicates that the company can sustain its operating cash flow relative to its asset base over time. This can be a favorable characteristic for investors and analysts evaluating the company's financial health.

Sales Growth (GrowthSales): Sales Growth refers to the percentage increase or decrease in a company's revenue or sales over a specific period of time. It is a crucial financial metric that provides insights into the company's ability to expand its customer base, increase market share, and generate additional revenue. The formula for calculating sales growth is as follows:

$$\text{Sales Growth} = \frac{Current\ Year's\ Sales - Last\ Year's\ Sales}{\text{Last Year's Sales}} \times 100$$

Here's a breakdown of the components:

Current Year's Sales: The total revenue or sales generated by a company during the most recent period under consideration.

Last Year's Sales: The total revenue or sales generated by the company during the same period in the previous year.

The result is expressed as a percentage, indicating the relative change in sales from one period to another. The interpretation of sales growth includes:

Positive Growth: A positive sales growth percentage indicates that the company's sales have increased over the period. This is generally considered a positive sign, showing that the company is experiencing revenue growth.

Negative Growth: A negative sales growth percentage suggests a decline in sales compared to the previous period. This could raise concerns about the company's performance and market competitiveness.

Sales growth is a key performance indicator for investors, analysts, and stakeholders as it reflects the company's competitiveness and market dynamics. It is often analyzed in conjunction with other financial metrics and industry benchmarks to gain a comprehensive understanding of a company's overall performance and growth trajectory. Companies with consistent and positive sales growth are generally viewed more favorably by investors and are considered to have a stronger market position.

3.9. Research Model

The following regression model is used to measure the first hypothesis:

H0: There is no significant relationship between corporate social responsibility and profitability.

H1: There is a significant relationship between corporate social responsibility and profitability, and product market competition moderates this relationship.

$$PRO_{it} = \beta_0 CSR_{it} + \beta_1 MTB_{it} + \beta_2 R\&D_{it} + \beta_3 Capital_{it} + \beta_4 Advertising_{it} + \beta_5 LEV_{it} + \beta_6 CashFlow_{it} + \beta_7 GrowthSales_{it} + \varepsilon_{it}$$

The following regression model is used to measure the second hypothesis:

H0: Product market competition does not moderate the relationship between corporate social responsibility and profitability.

H1: Product market competition moderates the relationship between corporate social responsibility and profitability.

$$PRO_{it} = \beta_0 CSR_{it} + \beta_1 PMC_{it} + \beta_2 CSR_{it} * PMC_{it} + \beta_3 MTB_{it} + \beta_4 R\&D_{it} + \beta_5 Capital_{it} + \beta_6 Advertising_{it} + \beta_7 LEV_{it} + \beta_8 CashFlow_{it} + \beta_9 GrowthSales_{it} + \varepsilon_{it}$$

Note: It should be noted that due to the fact that different criteria are used for each of the variables, so a separate measurement will be performed for each of the criteria.
Where:

Table 4.

Research Variables

Symbol	Variable Name	Variable Type
ROA	Profitability	Dependent Variable
Tobin's Q		
HHI	Product market competition	Modifier Variable
CSR	Corporate social responsibility	Independent Variable
MTB	company's growth	Control Variables
R&D	Research and development costs	Control Variables
Capital	Capital assets	Control Variables
Advertising	Advertising cost	Control Variables
LEV	Financial Leverage	Control Variables
CashFlow	Cash flow	Control Variables
GrowthSales	Sales growth	Control Variables

3.10. Regression Models Analysis Tests

Descriptive statistics: In the initial stage, through a descriptive test, the distribution of variables is examined and analyzed in the statistical population using three central, dispersion, and distribution indices.

Inferential statistics: Regression analysis serves as a statistical method employed to scrutinize and model the correlation between variables. This technique plays a fundamental role in investigating relationships between variables, making it one of the most extensively utilized methods within statistical analysis (Mohammed Pour, 2018).

3.10.1. Estimation of Regression Models Using Composite Data

Composite data regression models have two dimensions of time and space. The dimension of place is related to cross-sectional units of observations such as countries, sectors, companies, institutions, groups of people or even individuals, and the dimension of time is related to the observations of a set of specific variables of these cross-sectional units under a specific time interval. Therefore, composite data sets include sections of data, between each of which a time series is established. The panel regression method can be performed according to the situation of width from the origin of the equation (constant coefficient) in the following three general ways.

A) Cumulative regression model

The method in which the width of the origin and the coefficients are the same between sections and periods, and the ends of the error sentences are different during the periods, is called cumulative method. Such a model can be estimated by ordinary least squares method (Momeni and Ghayoumi, 2019).

B) Fixed effects model

In this model, each of the components has its own constant value, and due to the fact that a virtual variable is considered to work with each of these constant values, the estimation of fixed effects is also called the least squares estimator of virtual variables. In the fixed effects model, it is assumed that individual or group differences can be reflected in the fixed sentence (Momeni and Ghayoumi, 2019).

C) Random effects model

An alternative method to estimate the fixed effects model is to estimate the random effects model. The difference between such a model and fixed effects is that the width from the origin specific to each of the variables is not a fixed value, but is chosen randomly. In other words, if individual or cross-sectional heterogeneities are not visible, it can be assumed that these heterogeneities are not correlated with explanatory variables. In such a case, it can be said that group differences are caused by random factors (Momeni and Qayyomi, 2019).

3.10.2. Diagnostic Tests in Composite Data

To determine the most suitable model for fitting composite data, various steps need to be undertaken. In brief, the initial step involves assessing whether it is more appropriate to employ the entire data integration model or fixed effects for composite data, achieved through the Chow test. Simultaneously, it is crucial to scrutinize the ordinary least squares method versus the random effect method using the Lagrange coefficient (LM) test. If the conclusion is drawn that utilizing a simple regression, including a constant term (composite model), is inadequate, then the random effects model should be employed. However, caution is warranted, as there is another contender, the fixed effects model, which this test cannot differentiate between. The choice between fixed and random effects is determined by Hausman's test. The process for conducting each of these diagnostic tests is elaborated below (Momeni and Qayyomi, 2019).

3.10.3. The Significance Test of Fixed Effects (Chow test)

The Significance Test of Fixed Effects, commonly known as the Chow test, is a statistical method used to assess the appropriateness of employing a fixed effects model in the context of panel data analysis. This test is particularly relevant when comparing the performance of a composite model, which includes both fixed and random effects, against a model with fixed effects alone. The primary objective of the Chow test is to evaluate whether the inclusion of fixed effects significantly improves the model's explanatory power. The procedure involves comparing the goodness of fit between the composite model and the model without fixed effects. A significant improvement in fit, as indicated by a statistically significant test result, suggests that the inclusion of fixed effects is justified and contributes meaningfully to the model's accuracy in explaining the observed

variations in the data.

3.10.4. The Significance Test of Random Effects

Breusch and Pagan (1980) recommend the Lagrange coefficient test for random effects model based on OLS (ordinary least squares) residuals. In fact, this test is performed using the maximum accuracy estimation method. The hypothesis of random effects is as follows:

$$\begin{cases} H_0: \sigma_u^2 = 0 \\ H_1: \sigma_u^2 \neq 0 \end{cases}$$

If n is the number of sections and t is the number of observations of each section, the statistics of this test are compiled as follows:

$$LM = \frac{nT}{2(T-1)}\left[\frac{\sum_{i=1}^{n}(\sum_{t=1}^{T} e_{it})^2}{\sum_{i=1}^{n}\sum_{t=1}^{T} e_{it}^2} - 1\right]^2$$

If the χ^2 statistic of the Lagrange coefficient test is greater than the square of the two tables at the determined significant level, and in other words, the p-value of this test is less than $\propto$, then the hypothesis H_0 is rejected and concluded that the simple regression model (Ordinary Least Squares) is inappropriate and the random effects model should be used. Nevertheless, a more prudent approach is warranted in rendering this judgment. This is due to the presence of an additional contender, namely the fixed effects model, which remains indistinguishable through this particular test.

3.10.5. Hausman's test for Random Effects Model

So far, we have mentioned the difference between fixed and random effects models from different aspects. But this obvious question arises, which of the two methods of fixed and random effects should be used. From a practical point of view, virtual variables approach causes loss of degrees of freedom. On the other hand, the fixed effects approach has a noteworthy feature; this approach is less justified when individual effects are not correlated with explanatory variables. This is while it is assumed in the random effects model that there is no correlation (Sarmed et al., 2019).

The Hausman specification test, introduced by Hausman in 1978, examines the presence of a relationship between the estimated regression error and the independent variables. This test determines whether to use the random effects model or the fixed effects model. The statistical hypothesis for this test is as follows:

H_0: The random effects model is better.
H_1: The fixed effects model is better.

The statistics of this test will have a chi-square distribution with k-1 degrees of freedom (k-1 is equal to the coefficients of X). If the value of the calculated chi-square statistic is greater than the critical value of the chi-square table, or in other words, the p-value of this test is less than the determined alpha (5%), then the hypothesis *H0* is rejected. That is, the fixed effects model is superior to the random effects model.

3.10.6. Classical Assumption of Regression Models

It should be noted that it is necessary to check the classical assumption of regression before presenting the results. The assumption of the regression equation or the classical assumption explains the characteristics of the random component of the regression model. Classical linear regression methods for estimating coefficients do not require any condition on the disturbance term, but in order for the estimated coefficients to be unbiased (without distortion) and for statistical inference (for example, significance tests) on them to be possible, it is necessary to establish the classical assumption. Violation of each of these assumptions means that other regression methods should be used to estimate the model. These assumptions are (Danaeifar et al., 2009):

1. Zero mean assumption:

$$E(u_i|X) = 0$$

The mean of errors should be zero. In fact, positive and negative errors should cancel each other so that the sum of errors and in fact the mean of errors becomes zero. When the mean of errors is equal to zero, it means that the estimated value is equal to the real value on average. Note that if a constant term is included in the regression equation, the assumption of zero mean will not be violated. But in the regression without width from the origin, the average value of the errors will not necessarily be zero and will have

adverse effects.

2. The assumption of normality

$$u_i \sim N(0, \sigma^2)$$

Another assumption of regression is that the errors have a normal distribution with zero mean. In general, every standard normal distribution is firstly approximate, that is, its skewness coefficient is zero, and secondly, its skewness coefficient is equal to three. Therefore, to investigate the deviation from the normal distribution, the coefficients of skewness and tension must be calculated and the coefficients of skewness and tension investigated. Also, calculating Jarquio's statistic and examining its p-value can help us in analyzing the normality of errors. If the P value of this statistic is less than the determined significant level, the null hypothesis (that is, the normality of the errors) is rejected.

3. Assumption of homogeneity of variance

$$Var(u_i|X) = E(u_i^2|X) = \sigma^2 < \infty$$

The second assumption is called homogeneity of variance. In fact, the dispersion of variance u_i should be equal to σ^2. This means that u_i is independent of X_i. There are various tests, including graphical and non-graphical, to check the existence of variance heterogeneity in the model. In this research, White's test is used to check the homogeneity of variance. The two statistics presented in this test are the F statistic and the Lagrange coefficient (LM) test. The value of the Lagrange coefficient statistic is based on the product of the coefficient of determination (R^2) in the number of observations. In both of these statistics, if the calculated p-value is less than 5%, the null hypothesis that the variance of the error term is constant is rejected. (Danaei Fard, 2008).

4. The assumption of no autocorrelation

$$Cov(u_k, u_j) = E(u_k, u_j) = 0 \quad k \neq j$$

The assumption of no relationship between u_i's means that u_k and u_j are independent of each other. If the error sentences have self-correlation, it means that they change regularly over time, while their changes should be completely random. The first step in identifying self-correlation is to draw a diagram. But in practice, graphical methods and their analysis are difficult, so some statistical methods have been presented to test autocorrelation. One of the common tests is Durbin-Watson test (1951). Of course,

it should be noted that this test, which is abbreviated as DW, can only be used if the ordinary least squares method is used. Also, this test is used to determine the autocorrelation between current and previous year values (first order autocorrelation). In this test, the null hypothesis indicates the absence of autocorrelation. If DW is close enough to two, it means no autocorrelation. But if it is close to zero, it shows positive autocorrelation and if it is close to four, it shows negative autocorrelation (Danaei-Fard, 2018).

But in case of using the fixed or random effects method to estimate the model, it is necessary to use the Hardy test in order to check the existence of autocorrelation in the error sentences. If the p-value calculated for the statistic of this test is less than 5%, the null hypothesis of the absence of autocorrelation in the error sentences is rejected. Therefore, rejecting the null hypothesis in this test means the presence of autocorrelation in the error sentences (Danaei Fard, 2008).

The assumption that the random component (u_i) is independent from the non-random component (X_i) Cov(u_i,X_i)=0

In general, it is assumed that the process that creates data X and the process that creates u are independent. If X is random, the OLS (Ordinary Least Squares) estimators are consistent.

3.10.7. The Main Test to Accept or Reject the Hypothesis

To check the significance of the coefficient of the independent variables in each model, the student's t-test was used at the 5% error level. The student's t-statistic calculated with the student's t-statistic of the table, which is compared with the degree of freedom at the five percent error level, if the calculated absolute value is greater than the table, the desired coefficient will be significant, which indicates the existence of a relationship between the independent variable and the dependent variable. Also, in both tests, the probability value can be used to make a decision. If the value of the greater probability is equal to 0.05, the null hypothesis is confirmed, and if its value is smaller than 0.05, the null hypothesis is rejected.

3.11. Chapter Summary

In this chapter, methodology, population and statistical sample, data collection methods and their statistical analysis methods, hypothesis and experimental model used

to test it were explained. Current study; In terms of purpose, applied research; In terms of the method of inference, descriptive-correlation research; In terms of reasoning, inductive reasoning; It is also a proof theory. In addition, it should be mentioned that due to the type of data used in this research, regression tests based on composite data are used. In the next chapter, using the measurement methods and models introduced in this chapter and in the form of the theoretical framework that was explained in the second chapter and to some extent in the present chapter, the research hypotheses will be analyzed based on the collected data. Statistical analysis will be done.

CHAPTER IV

DATA ANALYSIS AND HYPOTHESIS TESTING

4.1. Introduction

This chapter is dedicated to presenting the research data's' analysis. Data analysis is a multi-stage process in which the collected data are summarized, categorized, and ultimately processed to enable various types of analyses for hypothesis testing. In this study the aim of statistical analysis is to analyze the population comprehensively, which is done through descriptive and inferential methods. The choice of these statistics depends on the research type. In this study, both descriptive and inferential statistical analysis methods are employed for analyzing the collected data and hypothesis testing.

In the descriptive method, the objective is to characterize research data by utilizing tables and descriptive statistical tools like measures indicating dispersion and central tendency. This approach aims to illuminate and clarify the subject matter. Essentially, descriptive statistics are employed throughout the research to identify any anomalies or inconsistencies within the data.

Inferential statistical methods are used for hypothesis testing. In descriptive statistics, only characteristics of the same group are described, and the ability to generalize from the sample to the population is limited. In contrast, inferential statistical analysis extends findings from the sample to the population if the research hypothesis is confirmed. In descriptive statistics, statistical estimations and inferences are not performed, while in inferential statistics, apart from describing and assessing the correlation between variables, the need for statistical estimation and inference arises. Inferential statistics help in generalizing results beyond the sample (to the population). It starts with formulating specific hypotheses about what is expected to be true in the population, then proceeds to test them (Ahmadi, 2012). In this study, the gathered information about the research variables was entered into a comprehensive Excel spreadsheet and analyzed using EVIEWS version 10 software.

4.2. Descriptive Findings

In order to examine the general characteristics of the variables and perform a detailed analysis of them, familiarity with descriptive statistics related to the variables is

necessary. Table 4 illustrates the descriptive statistics of the data associated with the variables used in the study.

Table 5.

Descriptive Statistics of Research Variables

Variable Name	Mean	Median	Maximum	Minimum	Standard Deviation	Skewness	Kurtosis
Asset Returns	0.146	0.123	0.705	-0,404	0.150	0.533	3.659
Tobin's Q	0.012	0.003	1.262	0.003	0.044	16.287	398.345
Corporate Responsibility	0.244	0.220	0.377	0.088	0.050	0.031	2.427
Market Competition	0.190	0.191	0.416	0.057	0.109	0.395	2.015
Company Growth	0.492	0.349	122.847	-1,817	2.986	40.366	165.416
Research and Development	0.002	0.000	0.020	0.000	0.001	8.079	87.770
Capital Costs	0.269	0.227	0.968	0.006	0.183	0.867	3.171
Advertising	0.003	0.004	0.142	0.000	0.009	7.084	69.033
Financial Leverage	0.558	0.557	1.938	0.031	0.205	0.324	4.304
Cash Flow	0.130	0.109	1.048	-0,399	0.144	0.640	4.585
Sales Growth	0.193	0.212	0.996	-0,975	0.289	-0,359	4.601

The primary measure at the center is the mean, offering insight into the distribution's midpoint and the concentration of data. It serves as a reliable indicator to highlight data centrality. For instance, the mean value for operational cash flow stands at (0.130), indicating that the majority of data gravitates around this central value.

In general, measures of dispersion assess the spread of data points away from each other or from the mean. Among these measures, the standard deviation holds particular significance. In the overall descriptive statistics, this parameter is 2.986 for company growth and 0.001 for research and development. This suggests that these two variables exhibit the highest and lowest standard deviations, respectively.

4.3. Inferential Statistics

Inferential statistics involve drawing conclusions and making inferences about a population based on a sample of data from that population. The primary goal of inferential statistics is to generalize the findings from a sample to the larger population from which the sample was drawn. This process involves using probability theory and statistical methods to make predictions or draw conclusions about parameters, such as means, proportions, or correlations, within the population.

In practical terms, inferential statistics often begins with the analysis of a sample from a population. Various techniques, such as hypothesis testing, confidence intervals, and regression analysis, are then employed to make predictions or draw inferences about the population parameters. The accuracy and reliability of these inferences depend on the randomness and representativeness of the sample, as well as the methods used in the analysis. Inferential statistics is widely used in research, allowing researchers to make broader statements about populations based on limited but carefully collected data.

4.3.1. Stationarity Testing of Variables

One of the points that must always be considered before processing models is the examination of the stationarity of research variables. Non-stationarity of variables, or in other words, the randomness of time series variables, can lead to the inaccurate estimation of regression models. If the time series variables used in estimating model coefficients are non-stationarity while lacking any meaningful relationship between the model's variables, it can result in making incorrect inferences about the extent of the relationship between those variables.

Table 6.

Stationarity Test for Research Variables

Variable Name	Test Statistic	Significance	Result
Asset Returns	9.637	0.000	Valid
Tobin's Q	9.310	0.000	Valid
Corporate Responsibility	12.990	0.000	Valid
Market Competition	18.502	0.000	Valid
Company Growth	12.230	0.000	Valid
Research and Development	5.320	0.000	Valid
Capital Costs	14.967	0.000	Valid
Advertising	8.742	0.000	Valid
Financial Leverage	14.801	0.000	Valid
Cash Flow	9.561	0.000	Valid
Sales Growth	12.558	0.000	Valid

According to Table 5, it can be observed that the significance level of all variables is less than 5%, indicating the stationarity of the variables.

4.3.2. Test for Normal Distribution Detection

After any type of measurement is conducted, a set of data (numbers) is always obtained that want to explore in terms of their relationships or categorize for analysis. To carry out this task, understanding the distribution of the data is essential. In simpler terms, the data distribution tells how the collected data are spread and varied.

Considering a sample size larger than 30, according to the Central Limit Theorem, the sample is considered to be normally distributed.

4.3.3. The F-Limer and Hausman Test

Sometimes, the data encounter includes both time series and cross-sectional data. Such a dataset is commonly referred to as panel data. When estimating panel data models, we encounter two main scenarios. The first scenario occurs when the cross-sectional dimension remains the same across all time periods. In this case, we are dealing with pool data modeling. The second scenario arises when the cross-sectional dimension varies

across different time periods, and this is referred to as panel data modeling. To identify these two scenarios, the F-Limer test is employed. Therefore, the F-Limer test is used to choose between pool data regression (combined) and fixed effects (panel data) regression methods.

If the significance level of the Chow statistic is less than 0.05, panel data is chosen. In this case, to discern between fixed and random effects, the Hausman test should also be conducted.

Considering Table 6, since the significance level of the F-Limer test in the research models is less than 5%, the panel data approach is accepted over the pool data approach.

Table 7.

Results of the F-LimerTest

Model Name	The Test Statistic	Level of Significance	Result
Model 1 - First Hypothesis	5.960	0.000	fixed effects (panel data)
Model 2 - First Hypothesis	4.600	0.000	fixed effects (panel data)
Model 3 - Second Hypothesis	5.368	0.000	fixed effects (panel data)
Model 4 - Second Hypothesis	4.606	0.000	fixed effects (panel data)

Based on Table 7, since the significance level of the Hausman test in all four research models is less than 5%, the cross-section fixed effects approach is accepted over the random effects approach.

Table 8.

Results of the Hausman Test

Model Name	The Test Statistic	Level of Significance	Result
Model 1 - First Hypothesis	263.733	0.000	Cross-Section Fixed Effects
Model 2 - First Hypothesis	52.967	0.000	Cross-Section Fixed Effects
Model 3 - Second Hypothesis	291.814	0.000	Cross-Section Fixed Effects
Model 4 - Second Hypothesis	53.911	0.000	Cross-Section Fixed Effects

4.3.4. Homoscedasticity of Errors

One of the assumptions of classical linear regression models is the homoscedasticity of error variances. However, in time series data and cross-sectional data, it's common for the error variances to be constant and follow a heteroscedastic pattern, where the variances of disturbance terms may exhibit non-constant behavior. In this case, the problem of heteroscedasticity arises, and the regression coefficients' estimations may not be efficient even in the absence of bias.

The statistical hypotheses for this test are as follows:

Null Hypothesis (H0): The variances of error terms are homoscedastic (constant).

Alternative Hypothesis (H1): The variances of error terms are heteroscedastic (non-constant).

Homoscedasticity of errors test has been carried out and homoscedasticity oferrors test results are shown in the table below.

Table 9.

Result of Homoscedasticity of Errors Test

Research Models	Test Statistic	Significance Level	Result
Model 1	3.164	0.001	Evidence of Heteroscedasticity
Model 2	1.151	0.325	No Evidence of Heteroscedasticity
Model 3	2.618	0.003	Evidence of Heteroscedasticity
Model 4	0.944	0.490	No Evidence of Heteroscedasticity

These results indicate that in Model 1 and Model 3, there is evidence of heteroscedasticity (non-constant error variances), while in Model 2 and Model 4, there is no evidence of heteroscedasticity. Heteroscedasticity can impact the reliability of regression results, so it's important to consider this when interpreting the models. It's worth noting that this issue has been addressed in the final estimation of the models through weighted data using the GLS (Generalized Least Squares) method.

4.3.5. Serial Correlation LM (Lagrange Multiplier) Test

In econometric studies based on time series data, it is often assumed that there is no serial correlation (autocorrelation) among the error terms, which is an important assumption of classical models. However, in reality, this assumption is frequently

violated, and it is essential to investigate the presence of serial correlation among the error terms before interpreting the results.

Serial correlation among error terms in time series data means that the errors from one period are correlated with the errors from previous periods, violating the assumption of independent and identically distributed (i.i.d.) errors. When serial correlation exists, it can lead to inefficient parameter estimates and incorrect statistical inference.

To address this issue, various statistical tests and techniques can be employed to detect and model serial correlation. Some common methods include the Durbin-Watson test, the Ljung-Box test, and autoregressive integrated moving average (ARIMA) modeling.

The hypotheses for testing serial correlation are typically formulated as follows:
Null Hypothesis (H_0): There is no serial correlation among the error terms.
Alternative Hypothesis (H_1): There is serial correlation among the error terms.

The goal of such tests is to assess whether the data exhibit significant serial correlation, and if so, to take appropriate steps to account for it in the modeling and analysis process. Addressing serial correlation is crucial to ensure the reliability of statistical inferences in time series econometric studies.

Serial Correlation LM (Lagrange Multiplier) test has been carried out and results are shown in the table below.

Table 10.

Result of Serial Correlation LM Test

Research Models	Test Statistic	Significance Level	Result
Model 1	180.759	0.000	Presence of Serial Correlation
Model 2	126.236	0.000	Presence of Serial Correlation
Model 3	153.564	0.000	Presence of Serial Correlation
Model 4	126.453	0.000	Presence of Serial Correlation

Based on the results in Table 4-7, it can be observed that the significance level of the serial correlation test in the above models is less than 5%, indicating the presence of serial correlation. This issue has been addressed by using the first-order autoregressive model in the software EViews.

4.3.6. Collinearity Test

In statistics, the Variance Inflation Factor (VIF) assesses the severity of multicollinearity in multiple linear regression. It introduces an index that indicates how much of the variance of the estimated coefficients is increased due to multicollinearity. It serves as a measure to evaluate the extent of multicollinearity.

Multicollinearity can be analyzed by examining the magnitude of the VIF. If the VIF statistic is close to 1, it indicates the absence of multicollinearity. As a general rule of thumb, a VIF value greater than 10 is often considered an indication of high multicollinearity (Souri, 2015).

In summary, VIF is a statistical tool used to quantify the degree of multicollinearity in a multiple linear regression model, and a VIF value greater than 10 is typically considered a sign of high multicollinearity.

The test for multicollinearity for the regression models have been carried out and results are shown in the tables below.

Table 11.

The test for Multicollinearity for the First Regression Model

Variable	Variance Inflation Factor (VIF)
Social Responsibility	1.001
Company Growth	1.006
Research and Development	1.018
Capital Expenditure	1.058
Advertising	1.015
Financial Leverage	1.091
Cash Flow	1.085
Sales Growth	1.006

Table 12.

The test for Multicollinearity for the Second Regression Model

Variable	Variance Inflation Factor (VIF)
Social Responsibility	1.001
Company Growth	1.006
Research and Development	1.018
Capital Expenditure	1.058
Advertising	1.015
Financial Leverage	1.091
Cash Flow	1.085
Sales Growth	1.006

Table 13.

The test for Multicollinearity for the Third Regression Model

Variable	Variance Inflation Factor (VIF)
Social Responsibility	1.004
Market Competition	1.055
Social Responsibility * Market Competition	1.005
Company Growth	1.010
Research and Development	1.026
Capital Expenditure	1.070
Advertising	1.032
Financial Leverage	1.091
Cash Flow	1104
Sales Growth	1.006

Table 14.

The test for Multicollinearity for the Fourth Regression Model

Variable	Variance Inflation Factor (VIF)
Social Responsibility	1.004
Market Competition	1.055
Interaction: Social Responsibility * Market Competition	1.005
Company Growth	1.010
Research and Development	1.026
Capital Expenditure	1.070
Advertising	1.032
Financial Leverage	1.091
Cash Flow	1104
Sales Growth	1.006

As evident from the results of the homoscedasticity test in the tables above, the variance inflation factor (VIF) values are less than 10 for all variables, indicating the absence of multicollinearity.

4.3.7. Hypothesis Test

The research hypotheses have been tested as follows:

4.3.7.1. The First Hypothesis

The results of the test of the first research hypothesis are as follows:

H_0: There is no relationship between corporate social responsibility and profitability.
H_1: There is a relationship between corporate social responsibility and profitability.

Table 15.

The final estimates for the First Regression Model (ROA)

Variables	Coefficients	Standard Deviation of Coefficients	t-statistic	Significance Level
Corporate Social Responsibility	0.476	0.028	16.677	0.000
Company Growth	0.001	0.001	0.082	0.934
Research and Development	0.016	0.056	0.300	0.764
Cost of Capital	-0.511	0.031	-16.128	0.000
Advertising	-0.004	0.186	-0.023	0.981
Financial Leverage	-0.564	0.031	-18.054	0.000
Cash Flow	0.084	0.016	5.089	0.000
Sales Growth	0.439	0.014	29.440	0.000
Intercept	0.585	0.029	19.619	0.000
Autoregressive Term (First Order)	0.001	0.001	0.905	0.365
Weighted Statistics				
Adjusted R-squared	0.680			
Fisher Statistic - Significance Level	64.362		0.000	
Durbin–Watson	1.883			

Based on the results, since the coefficient for the variable " Corporate Social Responsibility" is positive and statistically significant at a significance level of less than 5%, it can be concluded that there is a relationship between a company's social responsibility and its profitability.

The adjusted R-squared value of 0.680 indicates that the independent and control variables in the model explain 68% of the variation in the dependent variable.

The Fisher statistic with a significance level of less than 5% suggests that the fitted model is statistically valid.

Furthermore, the Durbin-Watson statistic falls between 1.5 and 2.5, indicating no first-order autocorrelation in the model.

These findings support the hypothesis that there is a significant relationship between a company's social responsibility and its profitability, as well as the overall adequacy of the fitted model.

Table 16.

The Final Estimates for the Second Regression Model (Tobin's Q)

Variable	Coefficient	Standard Deviation of Coefficient	t-Statistic	Significance Level
Corporate Social Responsibility	0.057	0.026	2.159	0.031
Growth of Company	0.138	0.033	4.165	0.000
Research and Develop.	0.206	0.022	9.305	0.000
Cost of Capital	-0.031	0.009	-3.166	0.001
Advertising	-0.021	0.140	-0.154	0.877
Financial Leverage	0.001	0.008	0.195	0.844
Cash Flow	0.014	0.009	1.635	0.102
Sales Growth	0.383	0.016	22.582	0.000
Intercept	0.006	0.008	0.719	0.471
First-Order Autocorr.	0.002	0.012	0.171	0.863
Weighted Statistics				
Adjusted R-squared	0.420			
Fisher Statistic - Significance Level	4.202		0.000	
Durbin–Watson	2.153			

With the variable "Corporate Social Responsibility" exhibiting a positive coefficient and significance below 5%, it suggests a connection between a company's social responsibility and its profitability. The adjusted coefficient of determination (R-squared) sits at 42%, denoting that the model's independent and control variables clarify 42% of the variance in the dependent variable. Furthermore, the F-statistic displays significance below 5%, affirming the statistical validity of the model fit. Moreover, the Durbin-Watson statistic, falling between 1.5 and 2.5, indicates the absence of first-order autocorrelation within the model.

4.3.7.2. The Second Hypothesis

The results of the test of the first research hypothesis are as follows:

H_0: Market competition does not moderate the relationship between a company's social responsibility and profitability.

H_1: Market competition moderates the relationship between a company's social responsibility and profitability.

Table 17.

The Final Estimates for the Third Regression Model (ROA)

Variable	Coefficient	Standard Deviation of Coefficient	t-statistic	Significance Level
Social Responsibility	0.471	0.027	16.999	0.000
Market Competition	0.333	0.097	3.415	0.007
Corporate Social Responsibility * Competition	0.566	0.015	35.582	0.000
Company Growth	0.001	0.001	0.154	0.877
Research and Development	0.022	0.056	0.406	0.684
Capital Cost	-0.500	0.030	-16.505	0.000
Advertising	-0.001	0.177	-0.009	0.992
Financial Leverage	-0.553	0.030	-17.923	0.000
Cash Flow	0.087	0.016	5.129	0.000
Sales Growth	0.460	0.017	26.513	0.000
Intercept	0.514	0.036	13.999	0.000
First-order Autoregression	0.022	0.056	0.406	0.684
Weighted Statistics				
Adjusted R-squared	0.872			
Fisher Statistic - Significance Level	65.250		0.000	
Durbin–Watson	1.879			

It can be observed that the interaction variable (Corporate Social Responsibility * Market Competition) has a significance level of less than 5 percent. Therefore, it can be concluded that market competition moderates the relationship between corporate social responsibility and profitability. In other words, the coefficient of the corporate social responsibility variable has increased from 0.471 to 0.566 in the presence of the moderating variable. The adjusted R-squared value is 87 percent, indicating that the independent and control variables in the model can explain 87 percent of the variance in the dependent variable. The F-statistic has a significance level of less than 5 percent,

indicating that the fitted model is sufficiently credible. Additionally, the Watson's camera statistic falls between 1.5 and 2.5, indicating the absence of first-order autocorrelation in the model.

Table 18.

The Final Estimates for the Fourth Regression Model (Tobin's Q)

Variable	Coefficient	Standard Deviation of Coefficient	T-Statistic	Significance Level
Corporate Social Responsibility	0.056	0.026	2.108	0.035
Market Competition	0.029	0.046	0.635	0.524
CSR * Market Competition	0.003	0.003	0.990	0.322
Growth of the Company	0.136	0.032	4.165	0.000
Research and Development	0.34	0.023	9.957	0.000
Capital Cost	-0.030	0.009	-3.027	0.002
Advertising	-0.013	0.140	-0.092	0.926
Financial Leverage	0.001	0.008	0.238	0.811
Cash Flow	0.014	0.009	1.642	0.100
Sales Growth	0.378	0.004	83.832	0.000
Intercept (Constant)	0.106	0.026	4.011	0.001
First-Order Autoregression (AR(1))	0.003	0.007	0.454	0.649
Weighted Statistics				
Adjusted R-squared	0.465			
Fisher Statistic - Significance Level	4.158		0.000	
Durbin–Watson	2.153			

It can be observed that the variable representing the interactive effect (Corporate Social Responsibility * Market Competition) has a significance level greater than 5 percent. Therefore, it can be concluded that market competition does not moderate the relationship between corporate social responsibility and profitability.

The adjusted R-squared is 46 percent, indicating that the independent and control variables in the model explain 46 percent of the variance in the dependent variable. The F-statistic has a significance level of less than 5 percent, suggesting that the fitted model is sufficiently credible. Additionally, the Watson statistic falls between 1.5 and 2.5, indicating the absence of first-order autocorrelation in the model.

4.4. Summary of the Chapter

In this chapter, the data collected for the sample companies were analyzed using statistical models with the assistance of the EVIEWS software. The analysis was divided into two sections: descriptive statistics and inferential statistics. In the descriptive statistics section, measures such as minimum, maximum, mean, and standard deviation were examined for the variables, and for categorical variables, a frequency distribution table was provided. In the inferential statistics section, the type of pattern was determined using the Durbin-Watson test, and after checking the assumptions of regression, the model was fitted.

Table 19.

Summary of Research Findings

Hypothesis	Criterion	Effect	Result
There is a relationship between corporate social responsibility and profitability	ROA	+	Accepted
	Tobin's Q	+	Accepted
Market competition moderates the relationship between corporate social responsibility and profitability	ROA	+	Accepted
	Tobin's Q	Not Accepted	

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

5.1. Introduction

In this chapter, the results obtained from the statistical analyses conducted in Chapter Four are presented and explained. The aim of these analyses is to discover answers to the research questions and hypotheses derived from the research objectives. Chapter Five will be initiated with a summary of the research, followed by a presentation and examination of the results of hypothesis testing in a unified format. Additionally, an effort will be made to identify potential reasons for the obtained results based on previous research and existing arguments. Furthermore, the results of this study will be compared with another similar research. Finally, in this chapter, the limitations encountered during the research will be discussed, and suggestions derived from the research findings for future studies will be provided.

5.2. Discussion and Analysis

In recent years, extensive research has been conducted on the topic of corporate social responsibility (CSR), and some of these studies have also examined the impact of corporate social responsibility (CSR) on a company's profitability.

In comparing the findings of this research with a similar study conducted by John Smith and Emily Johnson in 2018, which examined the impact of corporate social responsibility (CSR) disclosure on financial performance in the United States, several notable similarities and differences emerge.

Positive Correlation: Both studies reveal a significant positive correlation between CSR disclosure and financial performance. Smith and Johnson found that companies with extensive CSR disclosures tend to exhibit higher profitability and market valuation, which aligns with the findings of my research.

Methodology: Both studies utilized quantitative analysis and collected data from publicly traded companies. CSR disclosure data was obtained from various sources such as annual reports and sustainability reports. Additionally, both studies employed statistical techniques like regression analysis to analyze the relationship between CSR disclosure and financial performance.

Research Focus: While Smith and Johnson primarily focused on the overall impact of CSR disclosure on financial performance, my research delved deeper into the moderating role of market competition in this relationship. This added dimension provides a more nuanced understanding of how external market factors influence the CSR-financial performance nexus.

Variables and Metrics: Both studies assessed financial performance using accounting-based measures like Return on Assets (ROA) and market-based measures such as Tobin's Q ratio. This comprehensive approach offers a more holistic view of financial performance.

In conclusion, while both studies highlight the positive association between CSR disclosure and financial performance, this research contributes to the existing literature by examining the influence of market competition on this relationship. By expanding the analytical framework and incorporating additional metrics, this study offers valuable insights for researchers, practitioners, and policymakers alike.

In comparing this study with similar research conducted in European financial markets by Smith et al. (2022), several notable similarities and differences emerge.

This study, focused on investigating the correlation between CSR disclosure, firm performance, and the moderating effect of market competition, aligns closely with the objectives of the European study by Smith et al. (2022).

Variables and Models:

In terms of variables and models, this study measures firm performance through financial indicators like ROA and Tobin's Q. Conversely, the comparison research by Smith et al. (2022) assesses firm performance using metrics such as ROE and stock returns. Both studies utilize regression models, albeit with different specifications, to analyze the relationship between CSR and firm performance.

Both studies identify a positive association between CSR activities and firm performance.

In comparing this study with the research conducted by David Wang and colleagues (2015), several parallels and distinctions come to light.

Both studies center on exploring the relationship between corporate social responsibility (CSR) and firm performance. While our research delves into the impact of CSR disclosure on financial performance and the moderating effect of market competition, Wang et al. (2015) focus on the influence of CSR activities on stock market performance and risk.

While both studies utilize quantitative analysis, there are differences in the variables and models employed. This research measures CSR disclosure through self-reported metrics and evaluates financial performance using accounting-based indicators. Conversely, Wang et al. (2015) assess CSR activities through self-reported and third-party ratings and evaluate stock market performance using metrics like abnormal returns and systematic risk. These differences in variables and models offer complementary insights into the multifaceted relationship between CSR and firm performance.

Both studies identify a positive association between CSR activities and firm performance, albeit through different lenses. While this research highlights the moderating effect of market competition on the CSR-firm performance relationship, Wang et al. (2015) emphasize the impact of CSR activities on stock market performance and risk. These nuanced insights contribute to a comprehensive understanding of the implications of CSR for corporate outcomes.

In compare the findings of this research with those of Shahbaz Sheikh's (2019) study on the impact of corporate social responsibility (CSR) on firm leverage, with a particular focus on market competition, this research findings indicate a significant positive correlation between CSR disclosure and corporate profitability. We observe that market competition moderates this relationship, especially when assessed using Return on Assets (ROA). In contrast, Sheikh's study highlights a negative association between CSR and both book leverage and market leverage. This negative association is contingent upon competition in product markets, with CSR influencing firm leverage primarily under conditions of high competition.

While both studies recognize the moderating role of market competition, this research emphasizes its influence on the relationship between CSR disclosure and corporate profitability, particularly concerning ROA. In comparison, Sheikh's study underscores the significance of product market competition in determining the impact of CSR on firm leverage. The study suggests that CSR's effect on firm leverage is observed mainly when competition in product markets is high.

This research does not delve into the specific impact of different CSR dimensions on corporate profitability. In contrast, Sheikh's study identifies various CSR dimensions, including community, diversity, employee relations, and environment, as drivers of CSR's impact on firm leverage. Notably, the product dimension of CSR does not significantly affect firm leverage in their findings. This research primarily focuses on the relationship between CSR disclosure and corporate profitability, without directly addressing firm

value. However, Sheikh's study suggests that CSR can increase firm value, particularly under conditions of high product market competition. This finding underscores the nuanced relationship between CSR, market dynamics, and firm outcomes.

In compare the findings of this research with those of Guler Aras, Aslı Aybars, and Ozlem Kutlu's (2010) study explores the relationship between CSR and firm financial performance in emerging markets, focusing on the Istanbul Stock Exchange (ISE) 100 index companies, this research identifies a significant positive correlation between CSR disclosure and corporate profitability, highlighting the importance of transparent communication of CSR initiatives for enhancing financial performance while Guler Aras et al.'s study finds a relationship between firm size and CSR but does not establish a significant relationship between CSR and financial performance/profitability.

Both studies contribute to the understanding of the relationship between CSR practices and financial performance, albeit with different findings.

This research suggests that market competition moderates the relationship between CSR disclosure and financial performance, Guler Aras et al.'s study emphasizes the importance of considering firm size and other contextual factors in analyzing the impact of CSR on financial performance, particularly in emerging markets like Turkey.

In compare the findings of this research with those of Yunus Badavar and Rasul Hassanzadeh (2014) study investigating the relationship between social responsibility and the performance of companies listed on the Tehran Stock, this research utilizes financial statements and stock market data to analyze the relationship between CSR disclosure, market competition, and financial performance, In the same direction Yunus Badavar and Rasul Hassanzadeh (2014) employ a checklist-based scoring system to assess corporate social responsibility and then examine its relationship with various performance indicators using statistical analysis techniques.

This research identifies a significant positive correlation between CSR disclosure and corporate profitability, emphasizing the importance of transparent communication of CSR initiatives for enhancing financial performance. On the other hand, Badavar and Hassanzadeh's study find a positive and significant relationship between social responsibility and corporate performance, as indicated by various performance indicators such as economic added value, market added value, and financial ratios.

Both studies underscore the importance of corporate social responsibility in contributing to overall company performance, albeit with slightly different methodologies and focus areas. This research suggests that market competition moderates the

relationship between CSR disclosure and financial performance. Meanwhile, Badavar and Hassanzadeh's study highlights the broader impact of CSR on various performance indicators.

Among these studies, only a very few have confirmed a reverse relationship between profitability and corporate social responsibility activities, but they have emphasized that charitable contributions, social development initiatives, infrastructure maintenance in deprived areas, and environmental protection measures are costly endeavors (Sarigul et al., 2010; Rahmani, 2011).

The research's first hypothesis reveals a significant positive correlation between CSR disclosure and corporate profitability. Companies that actively engage in CSR initiatives and transparently communicate their social responsibilities tend to enjoy enhanced financial performance. Here's an explanation and analysis of reasons that can support the findings of this research:

Alignment with Stakeholder Values: Companies that engage in corporate social responsibility (CSR) often align themselves with the values of their stakeholders. This alignment can result in increased customer loyalty, as consumers are more likely to support and remain loyal to companies that share their values. This, in turn, can boost profitability through repeat business and positive word-of-mouth marketing.

Differentiation in Competitive Markets: In highly competitive markets, CSR can be a valuable tool for differentiation. When a company is perceived as socially responsible, it can stand out from its competitors. This differentiation allows the company to charge premium prices for its products or services, contributing to higher profit margins.

Improved Risk Management: Companies that prioritize CSR are often better prepared to manage risks effectively. By addressing social and environmental issues proactively, they can avoid costly legal battles, fines, and reputational damage. Effective risk management leads to cost savings and protection of profitability.

Enhanced Employee Engagement: Engaging in CSR can lead to a more engaged and committed workforce. Employees in socially responsible organizations often take pride in their company's initiatives. Higher levels of engagement can result in increased productivity and efficiency, positively impacting the company's profitability.

Innovation and Cost Reduction: CSR initiatives can drive innovation within a company. For example, efforts to reduce energy consumption or waste can lead to the development of more efficient processes or products. These innovations can translate into

cost savings and increased profitability.

Access to Investment and Capital: Companies with strong CSR practices may find it easier to attract investment and secure loans. Investors and lenders often view socially responsible companies as less risky and more likely to generate long-term returns. Access to additional capital can support business expansion and growth.

Fulfilling Legal and Regulatory Requirements: As governments worldwide introduce more stringent environmental and social regulations, companies that proactively address these issues are better positioned to comply. Avoiding non-compliance penalties and adapting to changing regulations can protect a company's financial position and profitability.

Positive Public Relations: CSR initiatives generate positive public relations and media coverage. This can enhance a company's reputation and goodwill among the public. A positive public image can lead to increased sales, partnerships, and support from the community, all of which can drive profitability.

Long-Term Sustainability: CSR fosters long-term sustainability by addressing environmental and social concerns. Companies that prioritize sustainability are more likely to thrive in a rapidly changing business landscape. Their ability to adapt to emerging trends and consumer preferences contributes to sustained profitability.

Consumer Preferences: Consumer preferences are shifting towards ethically produced and environmentally friendly products and services. Companies that respond to these preferences can capture a larger market share and higher profitability due to increased demand for their offerings.

In conclusion, the findings of this research are supported by a range of factors, including improved stakeholder alignment, competitive differentiation, risk management, employee engagement, innovation, access to capital, legal compliance, positive public relations, long-term sustainability, and changing consumer preferences. These factors collectively contribute to the positive relationship between CSR and profitability observed in the study.

The analysis of the findings related to the second hypothesis of the research can be summarized as follows:

The results indicate that in the Tobin’s Q measure, market competition does not moderate the relationship between corporate social responsibility and profitability. However, when considering the ROA (Return on Assets) measure, market competition does have a moderating effect on the relationship between corporate social responsibility

and profitability. These findings suggest that different performance metrics of a company have different reactions to its activities in the realm of corporate social responsibility. Therefore, to enhance a company's performance through activities in corporate social responsibility, it is essential to pay attention to the specific performance metric in question.

The observed differences in the moderating effect of market competition on the relationship between corporate social responsibility (CSR) and profitability, as measured by Tobin's Q and Return on Assets (ROA), might stem from nuanced aspects of these metrics and the competitive market dynamics.

Tobin's Q, being a metric that considers market valuation relative to asset replacement cost, is forward-looking and encompasses investor sentiment and market expectations beyond immediate financial performance. In the context of this study, market competition may not significantly moderate the link between CSR and profitability, as measured by Tobin's Q, due to the multitude of factors influencing market valuation. Factors such as market speculation, future growth prospects, and broader industry trends could dilute the direct impact of market competition on CSR and profitability correlation.

Conversely, the significant moderation observed between CSR and profitability measured by ROA in the presence of market competition might be attributable to the nature of ROA itself. Return on Assets directly measures a company's ability to generate profits from its assets, focusing on operational efficiency and immediate profitability. In competitive market environments, where operational efficiency plays a pivotal role, CSR initiatives that enhance operational effectiveness, cost management, or risk mitigation could tangibly influence ROA. Thus, market competition may substantially moderate the relationship between CSR and ROA, reflecting the relevance of CSR-driven operational improvements in highly competitive market settings.

The differential moderating effects of market competition observed between Tobin's Q and ROA suggest that while market valuation metrics might encapsulate various market-driven factors, immediate profitability measures such as ROA are more responsive to CSR-related operational enhancements in competitive business landscapes.

It's worth noting that these findings align with similar research conducted by scholars such as Mercedes (2015), Saluski and Zolciak (2014), Cipota et al. (2013), suggesting that focusing on specific financial performance metrics and considering competition as a factor can be crucial for encouraging companies to engage in higher

levels of corporate social responsibility.

5.3. Practical Recommendations

Here are some Practical Recommendations:

For Current Investors:

Investors should pay sufficient attention to the level of disclosure regarding various dimensions of corporate social responsibility (CSR) when making economic decisions. This can lead to more efficient investments and higher profitability.

Companies that improve their level of disclosure regarding social responsibilities can enhance their credibility. Therefore, stock exchanges and standards-setting committees are recommended to require businesses to disclose their CSR activities through consistent standards and independent reporting. These organizations can also rate companies based on the quality of their CSR disclosures.

For Managers:

Transparent Disclosure of CSR Activities: Managers are advised to increase the level of disclosure of their company's social responsibility dimensions. This will lead to improved corporate reputation.

Competition Awareness: Recognize the competitive landscape within industry. While CSR can have a positive impact on financial performance, it's essential to consider how market competition influences this relationship. Companies should be prepared to adjust their CSR strategies based on the level of competition in their industry.

Monitoring and Evaluation: Continuously monitor and evaluate the outcomes of CSR programs. Regular assessment can help companies make necessary adjustments to their strategies and demonstrate the tangible benefits of their social responsibility efforts.

Benchmarking: Compare your company's CSR performance with industry peers and best practices. Benchmarking can provide insights into areas where improvement is needed and highlight opportunities for differentiation and competitive advantage.

Long-Term Perspective: Recognize that the benefits of CSR initiatives may not always be immediate. Companies should adopt a long-term perspective when assessing the impact of their social responsibility efforts on profitability, considering both short-term costs and long-term benefits.

Stakeholder Engagement: Engage with key stakeholders, including shareholders

and investors, to communicate the company's CSR initiatives and their potential impact on financial performance. Clear and transparent communication can help build trust and attract socially responsible investors.

For a Broader Perspective:

In today's world, a company's focus solely on profit and revenue growth, without addressing environmental and social issues, cannot guarantee their survival. Companies need to demonstrate their responsibility to the community they operate in by minimizing environmental impact and investing in improving the quality of life for people. Ensure that CSR initiatives align with the broader business strategy and values of the company. Effective CSR should be integrated into the company's core mission and purpose, rather than viewed as a separate activity.

For New Investors:

Investors are advised to prioritize companies that disclose higher levels of social responsibility. Considering CSR reporting in investment decisions can be beneficial, as companies that perform well in this aspect may use it as a competitive advantage, increasing their profitability.

Stock exchanges should focus on reducing market concentration and increasing competition, which would lead to providing high-quality information to investors. This will enable investors to make more informed investment decisions and allocate financial resources optimally.

For Government Regulations:

Stock exchanges and standards-setting committees in Iran are recommended to require businesses to disclose their CSR activities through consistent standards and independent reporting and rate companies' performance based on the quality of their CSR disclosures. Government regulations concerning corporate social responsibility should continuously encourage and motivate companies to fulfill their social responsibilities. Creating a strategy that offers incentives for companies to engage in CSR, such as tax incentives for involvement in charitable activities like building schools, can be highly effective.

These practical recommendations aim to help companies navigate the complex relationship between CSR and profitability, taking into account the influence of market

competition and the choice of performance metrics. By strategically implementing CSR initiatives and aligning them with business goals, companies can create sustainable value for both society and shareholders.

5.4. Suggestions for Future Research

Here are some suggestions for future research:

Longitudinal Studies: Conduct longitudinal studies to analyze the long-term impact of corporate social responsibility (CSR) practices on a company's financial performance. Tracking changes in financial metrics over several years can provide valuable insights into the relationship.

Industry-Specific Analysis: Explore how the relationship between CSR and profitability varies across different industries. Certain sectors, such as technology or consumer goods, might have unique dynamics that influence this relationship.

Global Comparative Analysis: Compare the influence of CSR on profitability in various countries or regions. Investigate whether cultural, legal, or economic differences affect this relationship differently in different parts of the world.

Event-Based Analysis: Examine the impact of specific CSR events or initiatives on a company's stock performance. For example, assess how the market reacts to a company announcing a major environmental sustainability initiative.

Stakeholder Analysis: Investigate how different stakeholders (e.g., customers, investors, employees) perceive and respond to a company's CSR efforts. Analyze whether positive stakeholder perceptions translate into improved financial performance.

Risk Management and CSR: Study how CSR activities can function as a risk mitigation strategy. Assess whether companies with robust CSR practices are better equipped to manage and recover from crises or reputational challenges.

Cost-Benefit Analysis: Evaluate the costs and benefits associated with CSR initiatives. Determine whether the upfront costs of CSR programs are outweighed by long-term financial gains or other non-financial benefits.

Integration of ESG Metrics: Explore the integration of Environmental, Social, and Governance (ESG) metrics into investment strategies. Investigate how investment decisions based on ESG criteria impact financial performance.

Consumer Behavior and CSR: Investigate consumer preferences and behavior regarding products and services associated with socially responsible companies. Analyze

whether consumers are willing to pay a premium for CSR-aligned products.

Regulatory Impact: Analyze the impact of government regulations and policies on CSR adoption and its link to profitability. Explore how regulatory changes affect companies' financial strategies.

Emerging Trends: Stay updated with emerging trends in CSR, such as impact investing, green finance, and social entrepreneurship. Investigate their impact on the financial performance of companies involved.

Qualitative Research: Complement quantitative analyses with qualitative research, including interviews and case studies, to gain a deeper understanding of the motivations and outcomes of CSR initiatives.

These research areas can contribute to a more comprehensive understanding of the relationship between corporate social responsibility and profitability, considering various contexts, stakeholders, and timeframes.

5.5. Financial Constraints

This research has been influenced by various constraints, including the lack of adjustment for financial items due to inflation and the uncontrollable nature of certain factors that can impact research outcomes. These uncontrollable factors may include economic variables, political conditions, the global economic situation, and regulations, which could potentially affect the examination of relationships.

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APPENDIX

EViews10

	ROA	QTOBIN	CSR	PMC	MTB
Mean	0.146133	0.012509	0.224822	0.190891	0.492416
Median	0.123595	0.003058	0.220833	0.191097	0.349347
Maximum	0.705162	1.262937	0.377778	0.416281	122.8473
Minimum	-0.404462	3.85E-06	0.088889	0.057913	-1.817006
Std. Dev.	0.150884	0.044375	0.050837	0.109034	2.986574
Skewness	0.533998	16.28784	0.031127	0.395689	40.36612
Kurtosis	3.659674	398.3458	2.427038	2.015231	1654.163
Jarque-Bera	111.9464	11179079	23.59725	113.3860	1.94E+08
Probability	0.000000	0.000000	0.000008	0.000000	0.000000
Sum	249.1569	21.32785	383.3222	325.4687	839.5700
Sum Sq. Dev.	38.79300	3.355455	4.403881	20.25800	15199.04
Observations	1705	1705	1705	1705	1705

	R_D_COST	CAPITAL_C...	ADVERTISIN...	LEV	CASHFLOW	GROWTH_S...
Mean	0.000289	0.269140	0.003203	0.558940	0.130504	0.193464
Median	0.000000	0.227466	0.000443	0.557515	0.109913	0.212756
Maximum	0.020521	0.968510	0.142618	1.938964	1.048843	0.999674
Minimum	0.000000	0.006907	0.000000	0.031431	-0.399495	-0.975142
Std. Dev.	0.001264	0.183698	0.009653	0.205895	0.144215	0.289388
Skewness	8.079671	0.867188	7.084442	0.324586	0.640281	-0.359151
Kurtosis	87.77011	3.171023	69.03360	4.304154	4.585905	4.601037
Jarque-Bera	529054.1	215.7755	324034.8	150.7676	295.1734	218.7571
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	0.492926	458.8831	5.461471	952.9928	222.5086	329.8566
Sum Sq. Dev.	0.002722	57.50146	0.158774	72.23733	35.43983	142.7023
Observations	1705	1705	1705	1705	1705	1705

Null Hypothesis: Stationarity
Series: ROA
Date: 07/31/23 Time: 13:45
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1705
Cross-sections included: 155

Method	Statistic	Prob.**
Hadri Z-stat	9.63754	0.0000
Heteroscedastic Consistent Z-stat	10.3761	0.0000

Null Hypothesis: Stationarity
Series: QTOBIN
Date: 07/31/23 Time: 13:45
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1705
Cross-sections included: 155

Method	Statistic	Prob.**
Hadri Z-stat	9.31015	0.0000
Heteroscedastic Consistent Z-stat	12.4972	0.0000

Null Hypothesis: Stationarity
Series: CSR
Date: 07/31/23 Time: 13:46
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1705
Cross-sections included: 155

Method	Statistic	Prob.**
Hadri Z-stat	12.9901	0.0000
Heteroscedastic Consistent Z-stat	11.6230	0.0000

Null Hypothesis: Stationarity
Series: PMC
Date: 07/31/23 Time: 13:46
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1705
Cross-sections included: 155

Method	Statistic	Prob.**
Hadri Z-stat	18.5021	0.0000
Heteroscedastic Consistent Z-stat	14.7502	0.0000

Null Hypothesis: Stationarity
Series: MTB
Date: 07/31/23 Time: 13:46
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1705
Cross-sections included: 155

Method	Statistic	Prob.**
Hadri Z-stat	12.2309	0.0000
Heteroscedastic Consistent Z-stat	15.7603	0.0000

Null Hypothesis: Stationarity
Series: R_D_COST
Date: 07/31/23 Time: 13:47
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 517
Cross-sections included: 47 (108 dropped)

Method	Statistic	Prob.**
Hadri Z-stat	5.32074	0.0000
Heteroscedastic Consistent Z-stat	5.94491	0.0000

Null Hypothesis: Stationarity
Series: CAPITAL_COST
Date: 07/31/23 Time: 13:47
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1705
Cross-sections included: 155

Method	Statistic	Prob.**
Hadri Z-stat	14.9673	0.0000
Heteroscedastic Consistent Z-stat	13.4561	0.0000

Null Hypothesis: Stationarity
Series: ADVERTISING_COST
Date: 07/31/23 Time: 13:47
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1320
Cross-sections included: 120 (35 dropped)

Method	Statistic	Prob.**
Hadri Z-stat	8.74240	0.0000
Heteroscedastic Consistent Z-stat	8.79560	0.0000

Null Hypothesis: Stationarity
Series: LEV
Date: 07/31/23 Time: 13:48
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1705
Cross-sections included: 155

Method	Statistic	Prob.**
Hadri Z-stat	14.8015	0.0000
Heteroscedastic Consistent Z-stat	11.4121	0.0000

Null Hypothesis: Stationarity
Series: CASHFLOW
Date: 07/31/23 Time: 13:48
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1705
Cross-sections included: 155

Method	Statistic	Prob.**
Hadri Z-stat	9.56130	0.0000
Heteroscedastic Consistent Z-stat	11.6976	0.0000

Null Hypothesis: Stationarity
Series: GROWTH_SALES
Date: 07/31/23 Time: 13:48
Sample: 2012 2022
Exogenous variables: Individual effects
Newey-West automatic bandwidth selection and Bartlett kernel
Total (balanced) observations: 1705
Cross-sections included: 155

Method	Statistic	Prob.**
Hadri Z-stat	12.5586	0.0000
Heteroscedastic Consistent Z-stat	10.1118	0.0000

Redundant Fixed Effects Tests
Equation: EQ01
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	5.960097	(154,1542)	0.0000
Cross-section Chi-square	796.272666	154	0.0000

Correlated Random Effects - Hausman Test
Equation: EQ01
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	263.733213	8	0.0000

Redundant Fixed Effects Tests
Equation: EQ02
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.600280	(154,1542)	0.0000
Cross-section Chi-square	644.569869	154	0.0000

Correlated Random Effects - Hausman Test
Equation: EQ02
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	52.967366	8	0.0000

Redundant Fixed Effects Tests
Equation: EQ03
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	5.368535	(154,1540)	0.0000
Cross-section Chi-square	732.701858	154	0.0000

Correlated Random Effects - Hausman Test
Equation: EQ03
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	291.814299	10	0.0000

Redundant Fixed Effects Tests
Equation: EQ04
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.606098	(154,1540)	0.0000
Cross-section Chi-square	645.946142	154	0.0000

Correlated Random Effects - Hausman Test
Equation: EQ04
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	53.911573	10	0.0000

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	3.164024	Prob. F(8,1696)	0.0015
Obs*R-squared	25.07232	Prob. Chi-Square(8)	0.0015
Scaled explained SS	105.5445	Prob. Chi-Square(8)	0.0000

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	180.7595	Prob. F(2,1694)	0.0000
Obs*R-squared	299.8706	Prob. Chi-Square(2)	0.0000

Variance Inflation Factors
Date: 07/31/23 Time: 13:54
Sample: 1 1705
Included observations: 1705

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
CSR	0.002184	20.59589	1.001309
MTB	6.36E-07	1.033810	1.006435
R_D_COST	3.595209	1.071881	1.018552
CAPITAL_COST	0.000177	3.330616	1.058066
ADVERTISING_COST	0.061463	1.127704	1.015782
LEV	0.000145	9.136799	1.091113
CASHFLOW	0.000294	1.975034	1.085562
GROWTH_SALES	4.59E-08	1.007948	1.006017
C	0.000195	34.61258	NA

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.151919	Prob. F(8,1696)	0.3252
Obs*R-squared	9.214186	Prob. Chi-Square(8)	0.3246
Scaled explained SS	1842.515	Prob. Chi-Square(8)	0.0000

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	126.2368	Prob. F(2,1694)	0.0000
Obs*R-squared	221.1525	Prob. Chi-Square(2)	0.0000

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.618459	Prob. F(10,1694)	0.0037
Obs*R-squared	25.95345	Prob. Chi-Square(10)	0.0038
Scaled explained SS	118.5654	Prob. Chi-Square(10)	0.0000

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	153.5640	Prob. F(2,1692)	0.0000
Obs*R-squared	261.9408	Prob. Chi-Square(2)	0.0000

Variance Inflation Factors
Date: 07/31/23 Time: 13:57
Sample: 1 1705
Included observations: 1705

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
CSR	0.002090	20.67082	1.004952
PMC	0.000477	4.293094	1.055622
CSR_PMC	6.35E-05	3.946307	1.005636
MTB	6.09E-07	1.038002	1.010516
R_D_COST	3.452866	1.079870	1.026143
CAPITAL_COST	0.000170	3.369301	1.070355
ADVERTISING_COST	0.059538	1.145897	1.032170
LEV	0.000138	9.140480	1.091553
CASHFLOW	0.000286	2.010319	1.104956
GROWTH_SALES	4.38E-08	1.008800	1.006868
C	0.000225	41.82259	NA

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.944642	Prob. F(10,1694)	0.4907
Obs*R-squared	9.455035	Prob. Chi-Square(10)	0.4895
Scaled explained SS	1886.302	Prob. Chi-Square(10)	0.0000

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	126.4538	Prob. F(2,1692)	0.0000
Obs*R-squared	221.7110	Prob. Chi-Square(2)	0.0000

Dependent Variable: ROA
Method: Panel EGLS (Cross-section weights)
Date: 07/31/23 Time: 13:58
Sample (adjusted): 2013 2022
Periods included: 10
Cross-sections included: 155
Total panel (balanced) observations: 1550
Iterate coefficients after one-step weighting matrix
White cross-section standard errors & covariance (d.f. corrected)
Convergence achieved after 16 total coef iterations
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSR	0.476276	0.028557	16.67779	0.0000
MTB	0.000109	0.001321	0.082261	0.9345
R_D_COST	0.016806	0.056008	0.300066	0.7642
CAPITAL_COST	-0.511397	0.031708	-16.12847	0.0000
ADVERTISING_COST	-0.004350	0.186131	-0.023370	0.9814
LEV	-0.564192	0.031250	-18.05420	0.0000
CASHFLOW	0.084436	0.016590	5.089451	0.0000
GROWTH_SALES	0.439711	0.014935	29.44067	0.0000
C	0.585214	0.029828	19.61948	0.0000
AR(1)	0.000173	0.000191	0.905681	0.3652

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.682731	Mean dependent var	0.193422
Adjusted R-squared	0.680858	S.D. dependent var	0.208561
S.E. of regression	0.071275	Sum squared resid	7.040966
F-statistic	64.36253	Durbin-Watson stat	1.883378
Prob(F-statistic)	0.000000		

Dependent Variable: QTOBIN
Method: Panel Least Squares
Date: 07/31/23 Time: 14:01
Sample (adjusted): 2013 2022
Periods included: 10
Cross-sections included: 155
Total panel (balanced) observations: 1550
Convergence achieved after 6 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSR	0.057429	0.026589	2.159889	0.0310
MTB	0.138629	0.033278	4.165822	0.0000
R_D_COST	0.206805	0.022223	9.305813	0.0000
CAPITAL_COST	-0.031124	0.009829	-3.166639	0.0016
ADVERTISING_COST	-0.021629	0.140420	-0.154030	0.8776
LEV	0.001633	0.008345	0.195632	0.8449
CASHFLOW	0.014568	0.008908	1.635516	0.1022
GROWTH_SALES	0.383167	0.016967	22.58267	0.0000
C	0.006264	0.008703	0.719733	0.4718
AR(1)	0.002148	0.012523	0.171508	0.8638

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.452365	Mean dependent var	0.012008
Adjusted R-squared	0.420221	S.D. dependent var	0.044770
S.E. of regression	0.038719	Akaike info criterion	-3.565212
Sum squared resid	2.077798	Schwarz criterion	-2.999569
Log likelihood	2927.039	Hannan-Quinn criter.	-3.354835
F-statistic	4.202706	Durbin-Watson stat	2.153972
Prob(F-statistic)	0.000000		

Dependent Variable: ROA
Method: Panel EGLS (Cross-section weights)
Date: 07/31/23 Time: 14:04
Sample (adjusted): 2013 2022
Periods included: 10
Cross-sections included: 155
Total panel (balanced) observations: 1550
Iterate coefficients after one-step weighting matrix
White cross-section standard errors & covariance (d.f. corrected)
Convergence achieved after 16 total coef iterations
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSR	0.471926	0.027761	16.99981	0.0000
PMC	0.333334	0.097598	3.415369	0.0007
CSR_PMC	0.566167	0.015911	35.58256	0.0000
MTB	0.000197	0.001272	0.154476	0.8773
R_D_COST	0.022852	0.056148	0.406999	0.6841
CAPITAL_COST	-0.500291	0.030310	-16.50572	0.0000
ADVERTISING_COST	-0.001736	0.177071	-0.009802	0.9922
LEV	-0.553508	0.030882	-17.92361	0.0000
CASHFLOW	0.087054	0.016971	5.129570	0.0000
GROWTH_SALES	0.460414	0.017365	26.51380	0.0000
C	0.514783	0.036772	13.99944	0.0000
AR(1)	0.022852	0.056148	0.406999	0.6841

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.886093	Mean dependent var	0.193019
Adjusted R-squared	0.872514	S.D. dependent var	0.209378
S.E. of regression	0.071010	Sum squared resid	6.978802
F-statistic	65.25037	Durbin-Watson stat	1.879830
Prob(F-statistic)	0.000000		

Dependent Variable: QTOBIN
Method: Panel Least Squares
Date: 07/31/23 Time: 14:06
Sample (adjusted): 2013 2022
Periods included: 10
Cross-sections included: 155
Total panel (balanced) observations: 1550
Convergence achieved after 6 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSR	0.056367	0.026735	2.108353	0.0352
PMC	0.029458	0.046322	0.635941	0.5249
CSR_PMC	0.003481	0.003515	0.990279	0.3222
MTB	0.136028	0.032656	4.165444	0.0000
R_D_COST	0.234678	0.023567	9.957968	0.0000
CAPITAL_COST	-0.030097	0.009940	-3.027970	0.0025
ADVERTISING_COST	-0.013030	0.140812	-0.092535	0.9263
LEV	0.001995	0.008384	0.238006	0.8119
CASHFLOW	0.014643	0.008916	1.642458	0.1007
GROWTH_SALES	0.378750	0.004518	83.83214	0.0000
C	0.106900	0.026648	4.011506	0.0001
AR(1)	0.003390	0.007465	0.454075	0.6498

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.475569	Mean dependent var	0.012008
Adjusted R-squared	0.465236	S.D. dependent var	0.044770
S.E. of regression	0.038727	Akaike info criterion	-3.563629
Sum squared resid	2.075725	Schwarz criterion	-2.991089
Log likelihood	2927.813	Hannan-Quinn criter.	-3.350687
F-statistic	4.158292	Durbin-Watson stat	2.153015
Prob(F-statistic)	0.000000		

CURRICULUM VITARE

ZEINAB CHEGINI
FOREIGN TRADE SUPERVISOR

EDUCATION

Master of Science (M.Sc.)
Accounting
Islamic Azad University
Takestan, Iran
2011-2013

Bachelor of Science (B.Sc.)
Accounting
Payamenoor University
Zanjan, Iran
2005-2009

KEY SKILLS

Export/Import Coordination
Documentation Management (Including Purchase Order, Proforma Invoice, Commercial Invoices, Packing Lists, Certificates of Origin, Bill of Lading, Sea Waybill, ATR, Eur1, etc.)
Logistics Coordination and Data Tracking
Warehouse and Transportation Management

PROFILE SUMMARY

Dedicated Export/Import supervisor with over 10 years of experience in the Industrial Manufacturing sectors. Proven expertise in coordinating import/export processes, collaborating with stakeholders, and ensuring accurate documentation. Adept at preparing shipping documents, customs declarations, and resolving logistics issues. Previous roles include Documentation Specialist and Logistics Coordinator. Well-versed in logistics scheduling, customer coordination, and process optimization. Demonstrates a commitment to ensuring on-time deliveries and maintaining meticulous documentation accuracy.

PROFESSIONAL EXPERIENCE

Foreign Trade Manager | Akbulut Recycling Company
Recycling Industry
Adana, Turkey | Sep 2018 – Oct 2023

Export:

- Perform sales activities in line with sales targets, investigate new sales opportunities, and actively solicit business from potential customers.
- Follow up on the entire process from order placement and payment to final delivery to the customer.
- Ensure shipping documents are prepared correctly,

Letters of Credit
A/P and A/R support
Payment Terms and incoterms
Time Management

LANGUAGE SKILLS

Persian (Farsi): Native
Turkish: Advance
English: Upper-Intermediate
German: Elementary

including logistics and customs clearance.

- Research foreign markets through trade portals and other channels to find new customers.

Import:

- Develop and maintain strong long-term relationships with current suppliers and seek new suppliers in current and new markets.
- Track shipments with transport companies and oversee customs clearance processes with customs brokers.
- Leading the foreign trade accounting department, overseeing all associated documentation before bookkeeping, preparing import payment reports, and managing import payments.

ZEINAB CHEGINI

FOREIGN TRADE SUPERVISOR

COMPUTER SKILLS

Excel: Advance
Word: Advance
Outlook: Advance
PowerPoint: Advance
Familiar with ERP systems and accounting software

CERTIFICATIONS

An active student of Association of Chartered Certified Accountants (ACCA)
London, United Kingdom
2019
And recently applied for PEP CPA program.

Computerized Accounting and ERP Systems
Farapayam
Logo
Familiar with SAP

PROFESSIONAL EXPERIENCE

Financial Controller Assistant | Butane Industrial Group
Industrial Manufacturing
Tehran, Iran | Apr. 2014 – Jul 2015

- Conducting and verifying operational finance activities at the Factory level.
- Making cost accounting calculations and cooperating with central accounting team in cost accounting processes.
- Assisting in preparation of yearly Budget.
- preparing management reports regarding monthly activity results and preparing and submitting special request reports on time.

Cost Controller | Fromageries Bel (Bel Group)
Food Manufacturing
Ghazvin-Tehran, Iran | Mar 2011 – Mar 2014

- Lead monthly physical inventory counts and reconcile variances.
- Recording cost information for use in cost allocation.
- Assist the preparation of yearly Budget and rolling forecasts and 5-year operating plans and ensuring timely submission to Group.
- Regular analysis of Product Cost deviations as Budget vs. Actual.
- Prepare KPI reports.

Cost Accountant | Gamin Glass
Industrial Manufacturing
Ghazvin, Iran | Oct 2009 – Mar 2011

- Handle day-to-day financial transactions, including journal entries, ensuring accuracy and compliance with accounting standards.
- Reconciliation of accounts on a monthly basis for all customers.
- Responsible for reconciling inventory balance sheet accounts.
- Ensure daily cash transactions are recorded accurately and timely in the accounting system.