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Participation of companies with financial stress in social responsibility

activities and its effect on the probability of bankruptcy of companies)

Case study: Companies listed on the Tehran Stock Exchange

#### **Abstract:**

The main purpose of this study was to investigate the moderating effect of managers' social behaviors on the probability of failure of companies with financial stress in companies listed on the Tehran Stock Exchange. Then, according to the type of variables, data were collected between 1393 and 1399 from the data of 152 companies surveyed as a sample that were selected through the elimination method. According to the collected data, the relationships were analyzed. For this purpose, descriptive statistics of variables were first examined. Then, according to unit root test and F-Limer test, the variability of MANA and panel data were confirmed, respectively. Then, using data panel regression method, the relationships were analyzed. The results obtained in this section show the confirmation of all research hypotheses in line with the moderating effect of managers' social behaviors on the probability of failure of companies with financial stress in companies accepted in He had the Tehran Stock Exchange. So that the profit margin growth index with 2.88 and

interest rate index with 0.139 had the highest and lowest impact on the social behaviors of managers of companies listed on the stock exchange, respectively.

**Keywords:** Managers' social behaviors, Failure probability, Financial stress, Companies listed on Tehran Stock Exchange

# **Chapter First:**

Introduction

#### 1-1. Introduction

The intensity of competition in the industry has led many companies to be bankrupt or the firms with financial stress can emerge from the competition wheel ( Wang <sup>1</sup>et al , 2021 ). This has been the concern of the owners of the capital and generally society. The financial crisis and finally the financial collapse can cause huge losses for shareholders, investors, creditors, managers, employees, raw material suppliers and customers. The financial crisis does not show itself quickly, but in the midst of a mass of financial and non - financial information (Qadri et al, 2019). Investors always want to prevent the burning of their capital and profit by anticipating the possibility of a company going bankrupt. Hence, they are looking for ways to prevent companies from going bankrupt (Deng<sup>2</sup> and Chang, 2020); because in the event of bankruptcy, the stock price of companies will fall sharply. Business unit managers can also take precautionary measures if they are informed of the risk of bankruptcy in a timely manner. Bankruptcy is also considered from a macro perspective, because the resources lost in a crisis-ridden economic unit can be diverted to other lucrative opportunities. In this way, financial decision-making has become more strategic than in the past (Sadri Fard and Valizadeh Oghani, 2018).

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<sup>&</sup>lt;sup>1</sup> Wang

<sup>&</sup>lt;sup>2</sup> Dong & Chung

One of the ways to take advantage of investment opportunities and also to avoid wasting resources is to identify the causes of corporate bankruptcy. The existence of many variables leads managers, creditors, researchers and others to investigate the causes of company bankruptcy. In this way, the necessary measures can be taken to review the control of the company (Lang et al<sup>3</sup>, 2018). One of the factors that can affect the probability of bankruptcy of companies in general and the probability of bankruptcy of companies with financial stress in particular, is participation in social responsibility activities (Lin and Dong<sup>4</sup>, 2018).

In the 1850s, the role of corporations was purely economic and limited to creating maximum profits for shareholders. In this regard, such an approach was in line with the classical view that each company considered mainly managers and shareholders. At present, the idea of corporate social responsibility responds to the broader challenge of engaging not only in economic and financial debates but also in social, human, and environmental interactions (Bogan et al<sup>5</sup>, 2020).

Any company that wants to ensure sustainable performance development and avoid bankruptcy problems must not necessarily neglect the benefits of interacting in a social approach. Thus, companies, while being economic institutions, are essentially social institutions, and therefore must take into account the social consequences of their activities, balance the conflicting responsibilities they have to different stakeholders, and portray themselves as socially responsible companies (Hodge et al<sup>6</sup>, 2016). Thus, since the relationship between social, political, environmental, and economic roles in

<sup>&</sup>lt;sup>3</sup> Jingsi Leng, and Aydin Ozkan and Agnieszka Trzeciakiewicz

<sup>&</sup>lt;sup>4</sup> K.C. Lin and, Xiaobo Dong

<sup>&</sup>lt;sup>5</sup> Boğan

<sup>&</sup>lt;sup>6</sup> Hoje Jo and Moon H. Song and Albert Tsang

business has increased, organizations have encountered new dynamics. The challenge that organizations face is that they must simultaneously increase profitability and meet new social expectations and then simultaneously manage these two seemingly contradictory consequences that require the development of practical strategies and have positive effects on both society and the organization. Reach out. Implementing social responsibility at the company level is one of the effective mechanisms or strategies in this regard. In fact, today, in addition to performing their traditional duties, companies are obliged to perform other activities that the purpose of these activities is to meet the expectations of society and is referred to as corporate social responsibility. In this era, effective management is a management that leaves the company within the scope of its thinking and thinks about society and the wider environment, because neither company can separate themselves from society nor society can continue without companies.

Corporate Social Responsibility (CSR<sup>7</sup>) represents a commitment to creating social benefits and creates a positive image of companies, which leads to various benefits, including reducing their risk of bankruptcy. Managers' social behaviors are the main focus of corporate social responsibility, in this regard, Gao et al<sup>8</sup> (2014). show that managers aware of corporate social responsibility are less involved in selfish business activities, often due to advertising. Negative resulting from domestic and illegal transactions of unknown investors. Similarly, Kim et al(2012) <sup>9</sup>provide evidence consistent with the view that corporate social responsibility firms are more likely to

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<sup>&</sup>lt;sup>7</sup> corporate social responsibility (CSR)

<sup>&</sup>lt;sup>8</sup> Gao et al

<sup>&</sup>lt;sup>9</sup> Kim et al

avoid interfering with or manipulating actual activities and are less likely to violate international law, which in turn In turn, it reduces the likelihood of bankruptcy (Lin and Dong, 2018).

Companies with high social performance management are more inclined to publicly disclose their social activities. A high level of transparency in information reduces information asymmetry between the company and investors, and this reduces the risk of bankruptcy. The company's social activities reduce the company's friction with society and from this perspective will reduce the company's risk and costs (Darabi et al,2017). Therefore, based on the above, it is clear that corporate social responsibility can affect the likelihood of their bankruptcy, and this issue needs to be examined more closely. In this regard, in this study, the social behaviors of managers and its effect on the probability of bankruptcy in companies listed on the Tehran Stock Exchange have been investigated. To achieve this goal, the main question of the present study is: What is the effect of managers' social behaviors and its effect on the probability of bankruptcy in companies listed on the Tehran Stock Exchange?

## 1. 2. Statement of the problem

Environmental complexity, intensity of competition, the prevalence of new and advanced technologies, the development of information and communication technology, new ways of offering goods and services, environmental issues and the orientation of organizations from tangible to intangible assets, etc., is major factors. Which has caused organizations and businesses to face many risks and many risks and even unforeseen in their lifetime, including the risk of corporate bankruptcy (Bogan et al., 2020). The perceived threats can be such that organizations fail to fail. Hence,

managers need to think of ways to reduce undesirable risks to the organization for growth and survival. The firm risk management with a systematic view creates the maximum opportunity from existing risks in an industry and enterprise. Among the cases that can affect the probability of corporate bankruptcy is the social responsibility of the companies that need to be considered more closely with the relationship between them. in this regard, participation of financial stress companies in social responsibility activities and its effect on the probability of bankruptcy of companies) case study: accepted companies in Tehran stock exchange in Tehran stock exchange, stated that the expressed explanations indicate the importance of this research.

## 1-3- Importance and necessity of conducting research

according to the studies, research within the country has not been involved in the participation of firms with financial stress in the activities of social responsibility and its effect on the probability of bankruptcy of companies, as well as the variables used in the model of social responsibility in this study; on the other hand, the innovation in relation to the defined variables is related to the current ratios index and the index of the flow of cash flows that will be used in the model.

## 1-4- Research objectives

The main objective of this research is Participation of companies with financial stress in social responsibility activities and its effect on the probability of bankruptcy of companies in Companies listed on the Tehran Stock Exchange

#### 1-5- Research questions

#### The main question:

Does the managers 'social behaviors affect the possibility of failure of companies listed in Tehran stock exchange that have financial stress?

#### **Secondary questions:**

- 1. Does the growth of profit margin index affect the probability of failure of the companies listed in the Tehran stock exchange?
- 2. Is the sales turnover index affected by the possibility of the failure of the companies listed in the Tehran stock exchange?
- 3. Does the tangible indicator of the assets affect the probability of failure of the firms listed in the tehran stock exchange?
- 4. 4. Does the index of profit margin growth affect the social behaviors of managers listed in the tehran stock exchange?
- 5. Are the sales turnover index affected by the managers of the companies listed in the Tehran stock exchange?
- 6. Does the tangible indicator of assets affect the social behaviors of managers listed in the Tehran stock exchange?

#### 1-6- Research area

## 1-6-1. spatial territory of the research

The spatial scope of the research is considered in Stock Market

#### 1-6-2. Research time domain

The time scope of the research is during the year 2021-2022.

## 1-6-3. Subject area of the research:

The Subject area of the research is in Financial scopes.

#### 1-7. Data collection tools and methods

Regarding the separation of research implementation steps and its explanation, from using general titles such as, 'Collection of basic information', 'Preparation of test samples', 'Performing tests', etc. are avoided and it is necessary in each case to provide full explanations about the sources and centers of data preparation and requirements, type of activity, materials, methods, standards, equipment And the specifications of each should be provided.

The present study is an applied research in terms of purpose classification. The purpose of applied research is to develop applied knowledge in a specific field. Also, the present research is a descriptive correlation in terms of method and nature. In this research, the goal is to determine the relationship between variables. For this purpose, appropriate indicators are obtained based on the scale of measurement of variables. The research is conducted in the form of inductive deduction and its information is event-based.

## 1-8. Description of research operational terms

## social responsibility:

Corporate social responsibility is the responsibility of the company to the community, human beings, and the environment in which the organization is active, and this responsibility goes beyond economic considerations. Corporate social responsibility is defined in a tangible definition as follows: Organizational social responsibility is activities that promote social benefits and go beyond the interests of the organization and what the law requires (Yosefa Sayekti, 2015). Such activities have an impact on the environment and the community, and as a result

have social obligations such as compliance with certain standards, which can have benefits for the community and the company itself.

#### **Bankruptcy of companies:**

There are indiscriminate terms for bankruptcy in the financial literature. Some of these words are: unfavorable financial situation, failure, failure of the business unit, deterioration, helplessness, inability to pay debts, etc. In culture and context, 'failure' is defined as: 'description or fact of lack or inadequacy of funds in the short term' (Sadri Fard and Valizadeh Oghani, 2018).

#### **Financial stress:**

Financial stress in the economic instability of today's world is one of the most common sources of stress for the general public. In general, this type of stress occurs when the amount of expenses exceeds the amount of income (Lin and Dong, 2018).

#### 1-9. Thesis structure:

The present study will be presented in five chapters:

In the first chapter, the problem, the necessity of the importance of conducting research, scientific and practical goals of research and in a nutshell, the theoretical framework and definitions of specialized words and terms used in research were discussed.

In the second chapter, in addition to an intensive review of the literature on the subject of research and theoretical foundations, internal and external records in this field are examined. The third chapter is dedicated to research methodology including explanations in the field of society and statistical sample, research method and data

analysis method and at the end of the third chapter we will deal with the operational definition of research variables and statistical method of testing hypotheses.

In the fourth chapter, information analysis and research hypotheses will be tested by appropriate statistical methods. In the fifth chapter, while giving a summary of the research topic and research method, the results of the hypothesis test will be analyzed. Suggestions that can be used in future research are also provided.

**Chapter second:** 

**Fundamentals** 

#### 1-2.Introduction

Organizations include: enhancing the brand and Reputation of capital resources due to high business credit; reduction of risks from accidents and bitter events; improving the conditions of the work environment and consequently, improving productivity and increasing the ability to attract and retain employees which result in decreasing movement, absenteeism, and training costs. Most experts believe that the costs of social responsibility are short-term and its benefits are often long-term. Social responsibility is in fact a kind of investment for the future in the hope of gaining a sustainable and long-term competitive advantage. Short-term costs do not reflect social responsibility. Today, considering the important role of social responsibility in organizations and the important role of financial stress & probability of bankruptcy of companies is important, so in this chapter, the theoretical foundations and research background related to research have been presented.

#### 2-2. Environmental function

Environmental performance is a general term for those organizational activities that deal with the management of affairs and the job and behavioral responsibilities of employees. Environmental performance is a way to facilitate communication and understanding between employees and supervisors, and leads to a more favorable work environment and greater commitment to service quality (Gelderman, et al, 2021).

Environmental performance can be considered as a set of measures and information that is done in order to increase the level of optimal use of facilities and resources in order to achieve the goals in an economical way with efficiency and effectiveness. According to the above definitions, environmental performance can be considered as an approach that uses two-way communication between supervisors on the one hand to understand the demands and expectations of the organization and employees on the other hand, to transfer employee demands to supervisors and management of the environmental organization to use Creates the best of all facilities and resources to achieve the goals of the organization (Khan, et al, 2020).

Environmental performance makes it easy for supervisors to recognize poor employee performance and take action to improve it, and on the other hand, by giving appropriate rewards to good employee performance, encourage good performance and help them to repeat. Environmental performance is a process that involves performance evaluation as well as disciplinary systems and handling policies as its administrative tools.

## 2-2-1- The importance of environmental performance

In today's competitive world, productivity in all fields has increased and only organizations have the ability to utilize their resources and have the greatest productivity, the environmental performance that is an increase in manpower productivity is very important. nowadays, in new and progressive organizations, the most important factor is the success of organizations and its efficiency. To achieve effective environmental performance, organizations had to (Wang, et al, 2020):

- 1-Determine important success factors and optimal performance metrics.
- 2-Promote organizational culture or create a desirable organizational culture in line with environmental performance goals.

- 3-Constantly review organizational processes and employee performance and strive to improve them.
- 4-Establish a database to collect and apply the results obtained in human resource systems and future decisions of the organization.

By applying environmental performance in organizations and benefiting from the results obtained, organizations can organize their future activities in a systematic way as follows (Szabo & Webster, 2020):

- 1-Document employees' behaviors and job responsibilities.
- 2-Determining and defining the performance expectations of organizations and communicating them to employees
- 3-Creating the right framework for communication between supervisors and employees
- 4-Aligning the goals and expectations of the organization with the goals and desires of employees.
- 5-Creating a good opportunity for continuous evaluation of employees and guiding and encouraging them to achieve the goals of the organization by supervisors.
- 6-Establish a participatory system at all levels of the organization so that the goals and aspirations of the organization are easily conveyed to employees and on the other hand, the expectations of employees can be easily obeyed by the supervisors and management of the organization.
- 7-stablish a system of rewards and compensation that is appropriate and commensurate with the performance of employees.
- 8-Improving the level of employee satisfaction.

## 2-2-2- Principles of environmental performance

Specific principles should be considered as the basis and foundation of environmental performance. These principles can be described in the following 10 ways (Saleem, et al, 2020)):

- 1-A specific answer can be found for each problem.
- 2-Values are more than just profitability.
- 3- Environmental performance is a kind of basic business process.
- 4-Pay special attention to the power of information exchange.

## 3-2-2-Effective factors for the success of environmental performance

Environmental performance in practice can be successful when other organizational factors contribute to the environmental performance process. These factors can be classified as follows(Nkrumah, et al, 2020):

- 1-Alignment and coordination of senior management of the organization in establishing the process of environmental performance and comprehensive support for it.
- 2-Readiness of the organization's senior management to make the necessary changes to the current process if necessary.
- 3-Full coordination of environmental performance system with other systems of the organization.
- 4-Establishing necessary and appropriate trainings to better implement the environmental performance in the organization.
- 5-Direct involvement of employees in the implementation of environmental performance.

6-Methods of implementing environmental performance should be in a way that is in line with both the goals and expectations of the organization and the wants and needs of employees.

7-The performance of the organization should be evaluated, not the individual performance of individuals.

If the environmental performance process is successful, the first result is employee empowerment, that is, instead of independence or dependence, the employee seeks solidarity between employees and their group affiliation. Empowerment of employees is the foundation for continuous improvement of the quality of products and services to be provided to customers. Empowerment is an evolutionary and revolutionary process, evolutionary because it is done in several stages and is revolutionary because while performing the steps, the last steps It is also removed in order to ignore the current situation (Chou, et al, 2020).

Environmental performance systems, if properly implemented and used, can be the source of the driving force behind the improvement of performance and productivity of the organization, in which case they are considered as a source of benefit. On the other hand, if these systems cannot improve the performance of the individual in the organization, they are considered as a source of cost, which due to the waste of time and resources spent on them, creates a lost opportunity and becomes a source of unnecessary overhead costs.

#### 2-3- Environmental performance process

The environmental performance process is a cyclic process that begins with performance planning. The planning of its performance consists of two parts:

1-Defining employee roles and responsibilities and performance metrics and expectations that can inform employees about how they participate in the organization's strategy. In this section, employees are fully acquainted with the overall goals of the organization and the strategies to achieve them, and become aware of the demands and expectations of the organization.

2-Preparation and formulation of specific goals for employees, which is also done based on the duties, roles and responsibilities of employees.

Both of the above mentioned sectors are in phase planning and execution. In the first stage, the definition of roles and responsibilities and determination of objectives by supervisors and by using the data received from employees is conducted jointly. in the second stage, the supervisor with the employee and jointly with the formulation of the necessary strategies for achieving the goals set. In the third stage, the supervisor will decide on the way in which the employee will be used to assess the performance and progress of the employee, and in the fourth stage, the supervisor will supervise the progress of the employee's performance by carrying out the necessary assessments of the employee's performance, and gives him the necessary corrective rule to guide him, sometimes renewing his expectations and adjusting them.

As mentioned, guidance is the basis of environmental performance. During guidance sessions, supervisors provide the necessary solutions and guide employees in the agreed direction so that employees can achieve the predetermined goals. The mentioned process causes the optimal performance of the employees to be encouraged and as a result, its reproducibility increases, and on the other hand, the undesirable performance is identified and the employees improve their performance by providing a

suitable solution by the supervisor. This process, in turn, creates effective and unpretentious communication between the supervisor and the employee and creates an atmosphere of partnership with intimacy.

Training should also emphasize the strengthening of communication between staff and supervisors by discussing performance and comparing how expectations are met in a planning meeting. Training and guidance as a free and continuous communication, while ensuring that the performance and expectations of the performance are up-to-date, should be gained by encouraging the employees, preparing the necessary instructions and receiving feedback; And keep motivated and ready.

Supervisors in the role of coach should encourage and assist their subordinates to improve their knowledge, share resources and disseminate information about their successes and failures during guidance and training sessions. During these meetings, all staff duties, procedures and policies are reviewed to ensure that all of the above are clear, reasonable and practical, and to ensure that staff support the organization's goals. Otherwise, changes and adjustments can be made to the performance plan.

In the final stage, the supervisor evaluates and reviews the employees during regular and numerous scheduled meetings in order to be constantly aware of the progress of the work. Since the success of any environmental performance program depends on its ability to measure performance and its progress. It is very important to have regular and regular meetings and to determine the exact progress of the program.

In today 's turbulent and competitive world, organizations have the ability to survive and survive today, the more to improve their performance and productivity. one of the most important factors is the manpower needed to be tailored to the organization in order to study and achieve the goals of the organization, so that it fully recognizes the aims and expectations of the organization and tries to achieve them in order to achieve them.

To achieve such a goal, traditional environmental performance systems, which mostly support the individual excellence and competence of employees and have a negative and punitive view and emphasize the past, lack the necessary efficiency and effectiveness. On the other hand, an environmental performance approach that emphasizes the development of skills and abilities necessary to perform the job optimally; It supports collective responsibility and has a positive and future-oriented outlook, in which the terms "dialogue", "mutual understanding" and "mutual commitment" are the key words, appropriate to the goals of today's modern and progressive organizations.

Therefore, organizations must make a kind of shift from traditional systems to new systems of environmental performance. Also, organizations should not look for a quick fix that will immediately improve their productivity and performance. Environmental performance is a continuous process of performance improvement that achieves the necessary results in the long run and helps the management of the organization to find ways that can better support the organizational job and its employees to achieve the goals of the organization. (Musgrove&et.al2016)

## 2-4- Social Responsibility

The science of marketing has experienced a variety of philosophies to date, including philosophies based on production, product, sales, marketing, and finally the social marketing perspective, the philosophy of which is the last philosophy we discuss

in combining business science. And business and the environment and support it. In an age when the environment is becoming increasingly polluted, resources are dwindling, population growth is increasing, poverty and hunger are rampant in the world, and social services are being forgotten, the question is whether other views and previous philosophies Can it have the right meaning and pave the way for the above? And provide the interests of society in the long run?

Marketing based on social and environmental considerations has become very popular since the early 1980s. The concept of social marketing is based on the premise that every organization must first determine the needs, wants and interests of its target markets and ensure the survival and well-being of both the customer and the community, for example, consider Coca-Cola, which most People consider this company to be a very committed company in the field of soft drink production and in line with the taste and satisfaction of consumers. And environmental pollution caused by disposing of metal containers and bottles.

In 1989, during the study conducted in the US, the results showed that 49 % of respondents expressed their anger due to environmental issues. The Australian Bureau of Statistics 's study on 16 thousand people also shows that 75 % of people are concerned about environmental issues.

The above statistics show that environmental issues and environmental protection of green performance is a social process in which individuals and groups through the process of exchanging products and their value, their needs and wants through an ethical method that minimizes the negative effects on the environment. They fulfill. In other words, according to yulonsky, green performance includes all activities designed

to create and facilitate exchanges in order to satisfy human needs and wants, so that those needs and wants are with the least harmful and destructive effects on the environment. Rarely do environmental activities fit into all the criteria of a company. In addition, many companies use traditional business metrics to evaluate the success of green innovations.

Increased green performance activities can occur as a result of internal or external pressures. Satisfying consumer demand, reacting to competitors' actions, increasing government intervention, and increasing environmental pollution are some of the external pressures. There are many internal factors that put companies under pressure to implement green activities, some of which are:

#### 1-4-2-Cost factor:

This means that being green can lead to greater efficiency benefits and financial savings.

## 2-4-2-Company philosophy:

When company's value environmental goals as much as other company goals and incorporate environmental issues into the company philosophy, the issue of greenness is tied to company strategies.

## 3-4-2-Creating a competitive position in the market

Companies that consider environmental issues in the marketing and product production processes create a competitive position with competitors.

An important goal of ecological design is to integrate environmental considerations into all stages of the product development process. In order to control all the environmental effects of a product, its environmental impact must be considered during

the life of the product from production to use and even the end of its life. Green performance can occur at three levels: strategic, quasi-strategic and tactical. In strategic greening, strategic underlying changes occur in the company's philosophy. Quasi-strategic greening involves significant changes in the way business organizations are designed.

Environment is one of the most important criteria that consumers consider when buying it, as a result, environmental issues have entered into marketing concepts and an approach called green performance has emerged.

#### 5-2-The concept of social responsibility

A human is a social being who lives in society from birth to the end of his life and is constantly in interaction with other human beings. He must always learn how to live in a community and meet his needs. This requires a set of social skills that a person learns during the process of socialization, and learning them properly can lead to the formation of social responsibility in the last decade. Social responsibility has emerged as an extension of the field of studies called urban education and citizenship.

This new concept is much broader, in a sense that it involves the development of social skills that enables the individual and the organization to be responsible and active in the broader community and the political community.

Social responsibility is defined as following social rules and meeting society's expectations of the individual. These laws are inferred from social maps and in fact express cultural and social norms and show how and to what extent a person's commitment to other people in society.

Recent business trends confirm that organizations are expected to operate beyond profit and prioritize increasing the welfare of society. Proponents of social responsibility argue that large organizations should expand social responsibility as a strategic key in the organization not only to meet the needs of shareholders but also to meet the needs of different segments of society, including customers, suppliers and employees. Social responsibility will be discussed, then the approaches and theories of social responsibility of organizations, levels of responsibility, types and categories of responsibility, government policies in promoting social responsibility, results of social responsibility, and models of social responsibility will be discussed.

In the field of work ethic, most efforts have been made to distinguish between different types of responsibilities. To this end, a clear attitude should be developed about the concept of responsibility. Responsibility often refers to a kind of relationship between people and their environment. In the field of communication between individuals and organizations, responsibility implies accountability; An answer that is more than a projection, for example answers like "this is our way of working" or "market agents leave us no choice" is nothing more than a justification. In responsibility, a person's attitude toward the actions he or she takes also forms part of his or her response, and this response may be questioned.(Fisscher & Nijhof2005)

Maclagan1998Organizational social responsibility as a process in which managers consider their responsibility to identify, adapt and adapt to the interests of the groups that are affected by the actions of the organization. (Catler& Lee2005 )have defined corporate social responsibility as the commitment to improve society through being

good with business practices Corporate social responsibility and stakeholders in the organization's resources.( Holmes & Watts2000 )

define corporate social responsibility as the business unit's commitment to contribute to sustainable economic development by working with employees, the family, the local community, and the community at large to improve the quality of life.(hasas Yeganeh and Barzega, 2015)

Responsible action requires a response based on the intentions and motivations of the actions and activities. He claims that in order to be accountable, there must be an opportunity to act responsibly. (Bovens, 1990)

#### 2-6- Approaches and theories of social responsibility

## 1-6-2-The first theory or classical view

It is rooted in classical economic theories. According to this concept, the organization has only one goal and that is to maximize profits and consequently maximize the wealth of shareholders. Of course, this is accepted and supported to the extent that it follows a moral and legal framework in motion to achieve this goal.

The classical theory of the concept of corporate social responsibility was introduced by Milton Friedman in 1962.

The classics believe that there should be no restrictions on the organization. They believe that the invisible hand of the market forces the firm to supply the goods or services that society needs. One of the prominent characters in this category is Milton Friedman. While declaring firms' commitment to legal responsibilities, Friedman believes that corporate social responsibility is a steady increase in profits. In other

words, as long as limited liability exists legally for the shareholders of economic organizations, organizations will never fully accept their social responsibility.

In simpler terms, the new discussion of corporate social responsibility in practice will not be able to have a significant impact on the ten main principles of establishing an organization, namely protecting shareholders from possible financial losses from the organization's performance. In fact, he considers the main responsibility and does not know the responsibilities of the enterprise. According to this view, organizations should seek to make a profit, not be directly involved in social goals and issues. In this context, we define social responsibility as the production of goods and services at the lowest cost to society. One of the strongest proponents of the classical view is Milton Friedman.

This famous economist believes that managers should undertake activities that maximize shareholder profits. Friedman believes that allocating organizational resources to social programs without the consent of stakeholders is wrong. In addition, he believes that the social responsibility of enterprises is to make a profit. The theory of shareholder value, which is derived from fredman's economic theory, is consistent with this classical theory or view, and this approach is generally accompanied by the theory of representation.

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this classical theory or view, and this approach is generally accompanied by the theory of representation. (Cowen & Ferreri 1987)

#### 2-6-2- Second theory or accountability view

It was introduced in the 1970s and according to which social goals in the field of maximizing profits are not considered. Experts of this theory briefly believe that the life of the organization depends on the life of society and the organization takes its outputs from society and imports its outputs into society. Therefore, the social responsibilities of organizations are comprehensive and they must solve social problems with The community should cooperate.

According to this view, managers should feel responsible for specific groups that influence the organization or can influence the interests and goals of the organization. In other words, an enterprise must not only feel responsible to its shareholders and capitalists, but must also feel responsible to the same groups that contribute to its success. These groups are:

Shareholders, customers, government agencies, trade unions, employees, raw material suppliers, creditors, etc.

In other words, from the perspective of accountability, economic institutions are not only required to strive to maintain capital and increase profits, but also to feel responsible for the groups that contribute to their efforts.

Stakeholder theory is a normative approach based on Freeman's 1984 ethical approach and emphasizes the concept that organizations in society are committed to groups other than shareholders and beyond what is required by laws and contracts, and

according to this approach, the main goal of social responsibility Organizations create value for stakeholders without separating business from ethics.

This theory relates to business with respect to ethics and its main concerns are how to deal with the interests of stakeholders and include it in decision making.( Lacey & Kennett-Hensel2016)

## 2-6-3- Third theory or general view

This view has a wider scope than the view of responsibility. Public opinion defines economic enterprises as partners of the public government, economic enterprises as partners of the government and other institutions and institutions of society and believes that the organization is required to solve the problems of society and improve the quality of life of the general public in Work with other public institutions.

As a result, profitability is only one of the goals of the business. Hence, the organization is not free to pursue only its individual goals. According to this view, the organization is committed to pursuing humanitarian goals as much as it pursues its own personal goals. Accordingly, the organization is working hard to eradicate public problems such as poverty, unemployment, pollution, inflation, and so on.

Proponents of this philosophy believe that because society has allowed the organization to operate and use scarce resources and has created a suitable environment for profit, the organization should be indebted to society and always consider itself its servant.( Dam, L., & Scholtens2009)

There are moderate thinkers in this group, the most prominent of whom is Peter Drucker. Drucker considers the first and most important social responsibility of any institution to be the performance of its duty and work, and says that if a firm cannot do

its main job well, it cannot do any other work. A bankrupt business is neither a good employer, nor a good neighbor, nor a member of the Socialist Party, nor can it even provide sufficient capital to expand the work.

Therefore, it cannot employ more people. According to Drucker, the first condition of corporate social responsibility is its high volume and level of responsibility in successfully fulfilling its mission. This view is very similar to Friedman's view that economic responsibility of the firm is its main social responsibility. According to Druckerf, the most important constraint on social responsibility is the constraint on legitimacy and authority. Responsibility without authority does not make sense, so responsibility is associated with authority.

Organizational social responsibility is a key factor in the survival of any organization, which has become an inevitable issue due to the relationship of all organizations with society.

## 2-7- Policy-making in promoting corporate social responsibility and its effects

## 2-7-1- Government Policy Necessities

Evidence suggests that there is an important plan for governance in corporate social responsibility, but this role is not necessarily supervisory, while corporate social responsibility has traditionally been seen as an activity in which organizations engage voluntarily.

The growth and impact of the expansion of the concept of corporate social responsibility has led to an increase in requests from governments to regulate the social behavior of organizations in many countries.

The increasing expansion and development of various industrial and commercial institutions and organizations and the sharp increase in competition between them has caused organizations to think only of their own organizational interests in order to survive and to do nothing to achieve these goals. However, every seemingly small movement and decision that occurs in one of the sectors, regardless of its direct effects on the sector in question, gradually causes direct and indirect effects, hidden, obvious, tangible and intangible in all sectors of society and has created a series of continuous actions and reactions at all levels and layers of society.

According to one of the most important responsibilities and duties of governments and organizations in today's world, relationship management is a macro-sector. In summary, corporate social responsibility is attractive to governments because it enables them to complement or legitimize efforts to replace or legalize programs and policies.( Zappala2003)

Zappala considers the issue of public policy for social responsibility of organizations to have the following dimensions.

## 2-7-2- Help increase national competitiveness

Emerging evidence suggests that regulating the scope of corporate social responsibility action can create competitive advantages for countries and organizations. At a smaller level, studies show that the implementation of corporate social responsibility has a positive effect on the financial performance of organizations by influencing the credibility, employee morale, motivation, employment, customer loyalty and trust, government relations and management and crisis. For example, the investment of large oil companies in the field of renewable energy and government

support for it can ultimately provide competitive advantages for countries. (Eberle &et.al2013)

#### 3-7-2-Popularity by voters

Governments that make the issue of corporate social responsibility the subject of their public policy are more popular with the public. As mentioned in the previous sections, social awareness against irresponsible business actions is increasing. Employees are increasingly demanding an ethical and safe workplace, wanting to spend hours with their friends and family, as well as supporting their associations and unions. On the other hand, in developed countries, the growth of social awareness has led to popular vote and inclination towards groups and parties that advocate greater responsibility for organizations and a cleaner environment.

The growth of green parties in European countries is a clear reason for this claim.(
Rosati&et.al2015)

## 2-7-4- Complete social policy

Environmental and social issues facing society are so widespread that the government alone cannot address them effectively. Corporate social responsibility is an important way to enable governments to increase economic competition while also ensuring good environmental and social returns, for example, when activities such as corporate philanthropy, high-risk social investment, social entrepreneurship, social investment, Within a broader social and strategic policy framework, corporate social responsibility can be more effective against poverty, inequality, and environmental degradation. Initial individual actions by organizations to achieve the broader goals that

are deemed necessary can eventually be integrated and complemented by government actions.

Organizations or the private sector, along with the government, have responsibilities Which is traditionally the duty of the government. (Bredgaard2008)

## 2-7-5- Public policy options in corporate social responsibility

Public policy options in corporate social responsibility include the following:(Bell2002)

- 1-Inactivity or lack of government intervention in the social responsibility of organizations
- 2-Monitoring and legislation
- 3-Non-regulatory activity or taking a pragmatic non-regulatory approach
- 4-The best performance of governments as the best implementers of corporate social responsibility models

## 2-8- Social responsibility of organizations in Iran

Although the current concept of corporate social responsibility in Iran is not seriously mentioned for any of the actors, but this concept for Iranian organizations in the form of concepts such as endowments, good loans, the patriarchal role of capital owners, charitable donations and individually. And has existed on the basis of moral and customary values from the past.

The social responsibility of organizations for government in the concept of sustainable development has emerged in recent years and international organizations in Iran such as the UNDP competitive development program due to the dominance of this

concept in the world have tried to raise it among managers of Iranian organizations in the Millennium Development Goals. (saeedi&et.al2014)

#### 2-8-1- Classification of Iranian organizations in the field of social responsibility

Iranian organizations in the field of corporate social responsibility can be divided into the following four categories:

Irresponsible: Organizations in this category of customary law and generally accepted standards never follow organizations that engage in smuggling of goods or organizations that seek to exploit migrant workers and often comply with legal requirements such as health and safety of wages and working hours. They can fall into this category.

- 1- Irresponsible: Organizations in this category of conventional rule and practices and generally accepted standards are never followed by organizations that engage in smuggling of goods, or organizations seeking to exploit migrant workers and often violate the legal norms, such as wages and labor safety and working hours.
- 2- Minimally Responsible: In other words, these organizations have minimal conflict with government and local laws, in other words: the safety of production, minimum wages, employment opportunities equal to the health of workers and ... and if they are not obliged and required by the state laws, they do not abide by it, but observe that they are not involved in any activities that can be called social responsibility. For example, some mining agencies are in this category.
- 3- Incomplete: Organizations in this category are not openly in conflict with government law and are involved in a limited number of activities that are considered social responsibility. For example, these organizations sometimes donate to charities, or

participate in social activities, or establish a day care center for their employees' children, and sometimes improve product quality and receive ISO 9000 certification. Participating in social responsibility activities for these organizations is more of an incomplete and temporary thing than a long-term strategy. They never take action in a coherent and voluntary manner. In addition, the social commitment of these organizations is very low, gradual, and often due to motivations, in some cases, these motivations are profit-oriented.

4- Strategic: Characteristic of these organizations is that they take a systematic stance in a variety of areas for superior performance, with strategic or instrumental motivations, meaning that they explicitly cover areas that they believe will enhance the firm's financial performance. For example, a key area that is targeted by most organizations in this category is the problem of managing human resources, increasing the power of choice, maintenance and monitoring of competition, responding to customers 'needs, rapid resolution of consumers 'problems and introduction of specific services and specific requirements, quality of products or services may be the next domain, at this stage fits into strategy.

Although corporate quality management, ISO 9000 certifications, or participation in its processes and structures require social responsibility, receiving this certification can attract stronger partners, and organizations in this category often have strong ethical policies. They are looking for ways to adapt to the environment through programs such as ISO 14000, recycling programs, waste management solutions and further development of green products.

(Gupta&et.al2017)

#### 2-9- Factors affecting to facilitate the promotion of social responsibility in Iran

It seems that in Iran, four factors can be effective in introducing social responsibility into the management cycle and structure of organizations: NGOs and governmental organizations and organizations, multinational organizations, public joint stock organizations

# 2-9-1- Public joint stock organizations

Public joint stock organizations in Iran, on the one hand, due to the type of internal structure that shows a kind of democratic structure and the role of a large number of shareholders in running the company and having socio-economic power, the ability to play the role of social responsibility more than others Organizations in Iran have. These characteristics have made these organizations at the forefront of organizations that fulfill their responsibility to the community. In general, public - stock organizations can be more comfortable with the community to contribute to resolving social issues and requiring them to respond, on the other hand, the stock organization also has the tools necessary to promote social responsibility, mandate organizations to commit social responsibility and take responsibility for them, for example, the stock organization can make social and environmental reporting of organizations to be accepted in the stock exchange.(Mosavi&et.al, 2015)

## 2-9-2- Multinational organizations

Due to their many experiences in performing social responsibility in other parts of the world, these organizations can be a model for Iranian organizations in playing the role of social responsibility; Although such organizations are not a complete and appropriate example of corporate social responsibility, while multinational organizations are still expanding in Iran and these organizations have concentrated their activities in deprived areas, it is a good opportunity for domestic organizations to benefit from their experiences. It should be noted that there are sensitivities regarding the social and cultural activities of multinational organizations in Iran that should be reduced.

## 2-9-3- Non-governmental organizations and associations

Non - governmental organizations in two ways can contribute to the creation of social responsibility culture among Iranian organizations: from one hand such organizations can be the training and training base of future managers, managers and decision - makers will certainly pursue their interests in organizations if they are supporters or members of non - governmental organizations. Therefore, the personal interests and worldview of entrepreneurs, decision makers and managers, lead organizations to social responsibility, and this social responsibility is no longer negative, ie due to public pressure, on the other hand, NGOs can through influential groups in Influence the structure of public joint stock organizations and in a way direct the direction and orientation of public joint stock organizations towards social responsibility or, through the awareness of government authorities and public opinion, make the company aware of its social responsibility role.

#### 2-9-4- Government

The government, as the only legitimate institution of coercion, can incorporate social responsibility into the internal structure of organizations through policies of promotion, encouragement, punishment and protection. It can also take steps to raise

public awareness of the social role of organizations through engagement with civil society. Social encounters many cases of social responsibility; However, in the laws and the exclusive space of the activities of government organizations, we see the non-fulfillment of government duties in playing the role of social responsibility.

The lack of a comprehensive consumer protection law is another factor. In order to promote social responsibility, the government in Iran should act as a facilitator and impose strict laws on this purpose.

## 2-10- Results from the imposition of social responsibility policy

## 2-10-1- Organizations 'interests

- 1- Financial performance improvement
- 2- Reduction of operating expenses
- 3- Promoting the company name and logo
- 4- Increase sales and customer trust
- 5- More efficiency and higher quality
- 6- Reduce the need for new regulations
- 7- Access to capital
- 8- Improve product safety and reduce the need for new guarantees (Farrington&et.al2017)

# 2-10-2- Considering the interests of society and people

- 1- Participate in good deeds
- 2- Voluntary staff schemes
- 3- Everyone involved in public education, employment and assistance programs for the homeless.

4- Product safety and quality

#### 2-10-3- Environmental considerations

- 1- Recycle as much material as possible
- 2- More functionality and durability of products
- 3- Make more use of renewable resources
- 4- Application of environmental management tools in business plans, including life cycle and cost assessment, environmental management standards(khalili, 2015)

# 2-11- Models in the field of social responsibility policy

## 2-11-1- Archie Carroll model of social responsibility

Archie Carroll combined different areas of corporate social responsibility to provide a model. Archie Carroll outlined the corporate social responsibilities in four dimensions: economic, legal, moral, and altruistic.



Figure (2-1) Carroll model of organizational social responsibility (Saiful2006)

1-Economic responsibility: is described as the foundation, which is the foundation of all dimensions in the pyramid of social responsibility of the organization, and according to

Carroll is the most important dimension, because an organization must be profitable in order to maintain itself in the market and benefit society. In fact, economic responsibility is to make investments profitable through good quality production and fair prices for the consumer (Lantos, 2001).

- 2- Legal Liability: Refers to the principle that every business requires compliance with the rules and regulations set for the benefit of all.
- 3- Ethical responsibility: This dimension is as the expectations of the society from the organization and that the organization considers and respects the values and norms of the society and is beyond the framework of written laws.( Jamali & Mirshak 2006)
- 4-Altruistic responsibility: is a voluntary effort by the organization to address the issues and problems of society. (Sheth2006)

#### 2-11-2- Lantos Social Responsibility Model

He, Y., & Lai(2014) social responsibility divided the organization to the ethical social responsibility of the organization, social responsibility of the organization and strategic social responsibility of the organization.

The organization 's ethical social responsibility is expected to be morally responsible in order to prevent harm and damage that can be carried out as a result of their activities to others and society morally responsible for this kind of social responsibility of the organization of all organizations and must do it as a minimum.

The organization's humanitarian social responsibility is a real concern and voluntary attention. Organizational Strategic Social Responsibility is when an organization commits to pursuing certain social service activities that accomplish the strategic goals

of the business. Therefore, according to Lantos, corporate social responsibility should focus on two concepts( Peng&et.al2014):

- 1- Prevention of damage and injuries that could result in organization activities.
- 2- Conduct business strategic goals

#### 3-11-2- Cross-circle model

Carroll's pyramid framework does not fully represent the nature of an organization's social responsibility domains and fully depict the interrelationships between them. The areas of social responsibility of the organization are interacting with each other and one of the inseparable features of social responsibility of the organization is the interrelationship. Economic is not the most basic responsibility and also, economic measures in the direction of social responsibility of the organization are not less important than others. In other words, legal, moral and humanitarian responsibilities are just as important as economic responsibility for the business.

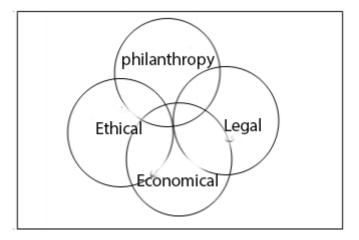


Figure (2-2) Cross-circle model

#### 2-11-4- Concentric circle model

This model is similar to the pyramid model, which in a sense is the economic role of business, the core of social responsibility. It is also similar to the cross-sectional model, which focuses on the interrelationships between the organization's areas of social responsibility. Thus, like the Carol pyramid model, economic responsibilities are at the heart of the model but no more important than other realms. In contrast, humanitarian responsibilities are paramount, but they must also be done with regard to the economic realm. In this model, shown in the figure below, each member of the inner circle is also a member of the wider outer circle, but the relationship is not reversed.

#### 2-12- Research background

Krishnamurti et al<sup>10</sup>(2019) studied the subject as a social responsibility for companies and risk: a global perspective. This paper investigates the corporate risk and its relevance to corporate social responsibility (CSR). For this purpose, using a sample of multinational countries at the international level, CSR has been found to reduce CSR at low risk level. in closer examination, the relationship between CSR and risk, the country level variables such as institutional quality, protection of minority shareholder rights, stock market development and press freedom are studied. In this regard, CSR is observed that in countries growing, CSR may only be reduced when the level of organizational level is high and citizens enjoy freedom of the press. The findings indicate that both formal institutions and civil society quality conduct CSR factors on risk.

Lin and Dong (2018)<sup>11</sup> in a study examined the "moderating effect of managers' social behaviors on the likelihood of failure of companies with financial stress." The present study documented this literature by showing that companies with a higher history of

<sup>10</sup> Chandrasekhar Krishnamurti and Syed Shams and Eswaran Velayutham

<sup>&</sup>lt;sup>11</sup> K.C. Lin and Xiaobo Dong

positive interaction with social responsibility are more prone to bankruptcy, that ethical capital associated with social responsibility components reduces the likelihood of bankruptcy as the firm grows.

Lang et al. (2018)<sup>12</sup> in a study entitled Excessive trust of managers and the possibility of financial helplessness of companies: Evidence from the United Kingdom, have examined this issue. This paper examines the relationship between CEO confidence and the likelihood of companies going bankrupt. The main purpose of this study is the effect of managers' overconfidence, a kind of behavioral bias, on the survival of companies. The main assumptions are that overconfidence (average trust) increases (decreases) the likelihood of companies' financial distress and the effects of CEO characteristics are adjusted by the characteristics of managers. Experimental evidence and research findings show that overconfident executives increase the likelihood of bankruptcy.

In a study by Di Benedetto(2017) It was stated that it was once thought that organizations and manufacturers were solely responsible to shareholders and employees, or that they should deliver the best consumer product to the customer at a lower price and higher quality, unaware of what side effects the product could have. and this is while human beings really have limited resources on the planet that they should try to meet their unlimited needs.

Therefore, intense competition, increasing population and scarcity of resources and environmental pollution led to the emergence of new approaches to organization and management, which was also the result of commitment and social responsibility.

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<sup>&</sup>lt;sup>12</sup> Jingsi Leng, and Aydin Ozkan and Agnieszka Trzeciakiewicz

Accordingly, it is important for marketers to use resources efficiently without compromising on achieving organizational goals. In the meantime, green cleaning is a marketing strategy that has helped marketers achieve this goal through the selection of green raw materials; Using energy sources that have the least damage to the environment; Green production process: packaging, sales and supply of green products: In order to fulfill their responsibilities, they should take steps to clean the greenery and preserve the environment. In this regard, there are consumers who in their purchasing behavior, the impact of the manufacturing process and consumption of goods on the environment and based on this, choose products that are superior in meeting environmental responsibilities. In fact, in order to truly protect the environment, green consumers are willing to pay more for products that meet environmental standards and social responsibility and pay more.

Therefore, increasing the number of such consumers, on the other hand, has led marketers to target the green part of the market in order to be accountable for their social responsibility and also to gain consumer satisfaction and trust. With the manifestation and application of green strategy, production costs are reduced and while the import of raw materials is less, the efficiency of resources is increased and as a result, the company's competitive position compared to competitors is improved. In other words, being green allows a company to outperform its competitors by offering new products in new or existing markets, and to increase profitability in the long run by buying consumer trust. This study seeks to explain and evoke its role in consumer trust as well as social responsibility by reviewing the emergence of emerging green in marketing and in turn fill the gap in this period.

in a study by Zhu, Q & Sarkis(2016) is stated that one of the issues of the world today is the issue of bio-conservation. Biological catastrophe not only robs human life of peace and security, but also threatens health and existence. So an idea called green action is put forward to reduce the risk of this catastrophe. The idea of green performance is the same idea of promoting green products often among green consumers.

The main purpose of this study is to investigate the effect of factors affecting green performance and the mediating and effective role of women in maintaining the environment and the market. The research method is "qualitative" and applied in terms of purpose. In terms of data collection, it is "review-library". The analysis of this study reveals a positive and significant relationship between the factors affecting green yield. The results of the studies show that effective factors such as social responsibility, environmental labeling and the role of women in creating green performance can play a valuable role in maintaining and maintaining a healthy environment.

Jumiati and Norazah(2015) in a study aimed at examining and identifying the view of young consumers on brand equity, they concluded that among young consumers, brand awareness mainly affects brand equity.

This group of customers gains this knowledge from social networks and media and uses them to compare products and services from different brands.

Ryan &et al (2013) in a study entitled The Impact of Services on the Brand Equity of Multi-Channel Retailers, they concluded those customers' perceptions of the quality of online and offline services have a positive effect on the brand equity of retailers. Meanwhile, the impact of offline services is less than online.

Albert carr(2011) In a study entitled "Social Responsibility and Profitability", he examined the role of social responsibility in business. In his research, he proposed the view of net profitability of social and economic responsibility. In fact, he concluded in his research that businesses have low ethical standards towards society and have no social responsibility other than following the law.

Scott&et al (2010) also in a study entitled "social responsibility of the company and financial performance of the company "investigating the relationship between financial performance and social performance of the company, the results of their research showed a positive relationship for the financial performance and social performance of the company.

Kerstin et al <sup>13</sup> (2006) investigated this issue in a study entitled risk, corporate social responsibility and financial constraints: international evidence of corporate level. This study examines the relationship between corporate level variables such as corporate social responsibility and financial constraints and risk at the corporate level. Empirical evidence of research has shown that firms ' perceptions of CSR performance are negatively associated with firms ' risk. Second, the firm's vulnerability to financial constraints is positively related to corporate risk. Third, there are very special effects for the company with the independence of the board of directors. Kim et al (2017) <sup>14</sup>studied the role of disclosure of social media reporting on risk of falling stock prices. The results and their empirical findings showed that firms acting on social responsibility and reporting are less prone to risk of falling stock prices.

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<sup>&</sup>lt;sup>13</sup> Lopatta, Kerstin, Jaeschke, Reemda, Tchikov, Magdalena & Lodhia, Sumit

<sup>&</sup>lt;sup>14</sup> Kim, Yongtae and Li, Haidan and Li, Siqi,

**Chapter Three:** 

Methodology

#### 3-1- Introduction

According to the content presented in the first chapter and the research literature that was discussed in the second chapter and since one of the most important aspects of scientific research to achieve the desired truth is the research methodology, so in this chapter we will deal with the research methodology. This chapter refers to the type of research and the method used in the research, the community, the sample under study and the period of study and the method of data collection. In the following, the variables used as well as how to calculate them and enter them into the model are examined.

#### 3-2- Methods and tools of data collection:

The information and data required for this research will be collected using documentary and library methods:

- 1. Information related to theoretical research topics will be collected from various sources such as authoritative international books and publications that are available online on Internet sites.
- 2- The data collection tool is in the section of theoretical foundations of library documents research and in the section of data analysis; the data of the stock market of Iran website is used.

## 3-3. Sample and statistical population

The present study population includes companies listed on the Tehran Stock Exchange.

In the present study, to determine the statistical sample, no special relationship has been used to estimate the sample size and sampling. Instead, the elimination method has been used. In other words, those companies in the statistical community that had the following conditions were selected as a statistical sample and the rest were removed. The sample selection conditions are presented as follows. The sample selection conditions and number in each condition are presented in Table (3-1).

- 1. In order to observe their comparability, the financial year of the companies should end at the end of March of each year.
- 2. During the research period, they have not stopped their activities and have not changed their financial period.
- 3. Not be part of banks and financial institutions (investment companies, financial intermediaries, holding companies and leasing companies).
- 4. All the information needed from the companies is available for research.

How to reach the sample companies based on the restrictions and the number of each restriction is as follows:

Table 3-1 Number of companies based on restrictions

Number	Description
470	Total number of companies listed on the stock exchange until the end of the year 2021
147	Minus the total number of companies eliminated before the end of 2021

51	Minus the companies that have been listed on the stock exchange after 2013
48	Minus investment companies, real estate, banking and insurance and
10	holding
49	Minus the number of companies whose fiscal year does not end in March or
15	have changed fiscal year
23	Minus the number of companies that lack market value and requested
23	information
152	Number of companies remaining

## 3-4- Data collection tools required for research

This research is based on the library method. Also in this research, information related to thematic literature, theoretical foundations, background and records of previous researches on the subject of research from library sources and through reading books and publications of articles, dissertations. It will be collected from external sources. Information and data required to review and test research hypotheses from financial statements and reports submitted by companies to the stock exchange, as well as prudent software and information. Corporate finance will be extracted.

#### 3-5- Methods and tools for data analysis

After collecting the data needed to conduct research, choosing the appropriate tool to calculate and analyze information about variables is of particular importance. In order to perform calculations and prepare data and information required for research and also to analyze them, Excel and Eviews software (version 7) are used.

## 3-6- Research variables and operational definitions

In this research, following Lin and Dong (2018), the following regression model will be used:

$$\begin{aligned} & \text{Prob}(BANKRUPT_{(t+1,t+3)} = 1) = a_0 + a_1 CSR_{(t-2,t)} + a_2 PM_t + a_3 SALTURN_t + a_4 INTAN_t + a_5 CURNRATIO_t \\ & + a_6 OCFCOV_t + a_7 LEV_t + a_8 BTM_t \\ & + a_9 SIZE_t + a_{10} STKRET_t + a_{11} STKVOL_t \\ & + a_{12} GDP_t + a_{13} IP_t + a_{14} INT_t + \epsilon \end{aligned}$$

Where:

## **Dependent variable:**

Bankruptcy probability (*BANKRUPT* ): is defined as a virtual variable so that if the company's Z-Score is higher than the average of the sample, it will be defined as a company with a bankruptcy probability and will have a value of one. Otherwise it will be zero

# **Independent variables:**

Profit Margin Index (PM): Defined as the ratio of the difference between sales revenue and the cost of goods sold, divided by total assets.

Sales Turnover Index (SALTURN): Defined as the ratio of sales revenue divided by total assets.

Index of tangible assets (INTAN): Defined as the ratio of tangible and tangible assets to total company assets.

Current ratio index (CURNRATIO): Defined as the ratio of current assets divided by current liabilities.

Cash flow coverage index Index (CFCOV): Defined as the ratio of operating cash flows divided by total liabilities.

#### **Modifier variable:**

Managers' social behaviors in the form of corporate social responsibility index (csr): has been used in this research. In this research, four criteria of social participation, employee relations, environment and product characteristics have been used. Each criterion has two separate and specific categories of strengths and weaknesses. In case of any relevant strengths or weaknesses, it is considered as one number and in their absence, it is considered as zero number. The social responsibility score is then calculated from the following equation:

$$csr_t^i = \frac{\sum_{p=1}^{n_t^i} Strength_p^i}{n_t^i} - \frac{\sum_{q=1}^{m_t^i} weakness_q^i}{m_t^i}$$
(2)

Where,  $csr_t^i$  the liability disclosure score in company i at time t, Strength the total set of strengths of company i,  $n_i^i$  the total set of weaknesses of company i at time t, weakness the total set The weaknesses of company i.  $m_i^i$  are the total weaknesses of company i at time t. According to Mishra's research, the strengths and weaknesses of social responsibility are listed in the table below:

Table (3-2) - How to measure social responsibility variables in research

Dimensions of social responsibility	weak points	Strengths	
social participation	Negative economic impact (negative impact of quality of life, factory closures) not paying taxes	Stubborn contributions Innovative contributions (assistance to non-profit organizations, participation in development projects)	
Total score of social participa	ation disclosure		
Employee relations	Poor health and safety (lack of ISO 1800) Reduction of labor force	Pay bonuses to employees Retirement benefits	
Total score of employee relations disclosure			
the environment	hazardous waste of fine	Clean energy (use of	

	pay due to the violation	fuel or less pollution
	of waste management	(recycling)) control of
		air pollution and reduce
		greenhouse gas
		emissions
Sum of environmental disclosure score		
Due les d'Es des se	Non - payment of fines	Product quality
Product features	on the safety of products	Product safety
Total score of product feature disclosure rate		

- ✓ Profit Margin Growth Index (PM): Defined as the ratio of the difference between sales revenue and the cost of goods sold, divided by total assets.
- ✓ Sales Turnover Index (SALTURN): Defined as the ratio of sales revenue divided by total assets.
- ✓ Asset Tangibility Index (INTAN): Defined as the ratio of tangible and tangible assets to total company assets.
- ✓ The current ratios index (CURNRATIO): is defined as the ratio of current assets divided by current debts.
- ✓ Cash Flow Index (OCFCOV): Defined as the ratio of operating cash flows divided by total liabilities.
- ✓ Financial Leverage Index (LEV): Defined as the ratio of debt to assets.
- ✓ The company's value index (BTM) is defined as the ratio of market value to book value of equity owners.

✓ The company size index (SIZE) is defined as the natural log of total assets of the

firm.

✓ Accumulated stock return index (STKRET): Defined and calculated as cumulative

stock yield.

✓ The return fluctuation index (STKVOL) is defined as the standard deviation of the

stock returns.

✓ GDP growth indicator (GDP): defined as annual GDP changes.

✓ Industrial Production Growth Index (IP): The growth rate of industrial products is

defined annually.

✓ The interest rate index (INT): is defined as the annual interest rate in the country.

3-7- Statistics function (examiner criterion):

3-7-1-Descriptive statistics

After collecting the data, the data are first described using descriptive statistical

techniques. Given that the present study was conducted for member companies of a

statistical sample over a period of 7 years; therefore, first descriptive statistics that

include the value of minimum statistical parameters, maximum value, mean and

standard deviation will be presented.

3-7-2- Inferential statistics:

3-7-2-1: K-S test of data normality

Formula:

In order to investigate whether parametric statistical methods or non-parametric statistical methods are used in the research, the Kolmogorov-Smirnov test is used as follows:

$$W = n\left(\frac{A_1^2}{6} + \frac{(A_2 - 3)^2}{24}\right) \tag{3}$$

In this statistic, (skewness coefficient) and (elongation coefficient) are.

How to judge:

If the calculated sig is greater than the significance level of 0.05, the H1 hypothesis is rejected and the H0 hypothesis is accepted, meaning that the data are normal. And if the calculated sig value is less than the significance level of 0.05. Assumption H0 is rejected and assumption H1 is accepted. That is, the data does not follow the normal distribution, so ln is used to normalize the data.

## 3-7-2-2: D-W Test (Durbin Watson (DW):

Formula:

In order to check the independence of errors from each other, the Watson-Camera test is used, the statistics of which are calculated using the following formula:

$$DW = \frac{\sum (e_t - e_{t-1})^2}{\sum e_t^2}$$
 (4)

 $e_t$  = rate of disturbance or error in time period t and  $e_{t-1}$  = rate of disturbance or error in time period before t. If we show the correlation between the errors with  $\rho$ , then the DW statistic is calculated using the following equation.

#### 3-7-2-3: Single root test (mana test)

Formula:

One of the most useful tests in the field of persistence is the generalized Dickey-Fuller test. The formula is to assume that the y t series, based on its simplest form, is a first-order self-regression model:

$$y_t = \alpha y_{t-1} + \epsilon_t \tag{6}$$

If  $|\alpha| < 1$  so, it is our secret. In this test, the null hypothesis is the reason for anonymity, and the optimal state occurs when the null hypothesis is rejected.

How to judge:

If the calculated sig is less than the significance level of 0.05, assumption H0 is rejected and assumption H1 is accepted. It means that the data is permanent. And if the calculated sig value is greater than the significance level of 0.05. Assumption H0 is confirmed and Assumption H1 is rejected. That is, the data is not meaningless.

# 3-7-2-4: Model Fit Test (F Limer)

Formula:

In order to determine which method is used to fit the model (composite or panel data), we must apply the F-Limer or Chow test, the calculation formula of which is as follows:

$$F_{N-1,NT-N-K}^* = \frac{RRSS - URSS / N - 1}{URSS / NT - N - K} \tag{7}$$

Where: RRSS: sum of useful waste squares, K: number of explanatory variables, URSS: sum of squares of useless waste and N: number of sections

If the calculated sig is higher than the significance level of 0.05, the H0 hypothesis is confirmed and the H1 hypothesis is rejected. This means that poold data is preferable to the panel data method and if the calculated sig value is less than the significance level of 0.05. Assumption H0 is rejected and assumption H1 is confirmed. This means that Panel data is preferable to Poold data.

## 3-7-3: Multivariate regression test

Formula:

F-statistic was used to evaluate the significance of the multivariate regression model. The method of calculation is as follows:

$$F = \frac{ESS/(K-1)}{RSS/(N-k)}$$
(8)

How to judge:

If the calculated sig is less than the significance level of 0.05, the H0 hypothesis is confirmed and the H1 hypothesis is rejected. This means that regression has explanatory power. But if the calculated sig value is greater than the significance level of 0.05. Assumption H0 is rejected and assumption H1 is confirmed. This means that the obtained F statistic is compared with the table F, which is calculated with the degrees of freedom K-1 and NK at the error level ( $\alpha$ ) of 5%, and the calculated F is greater than the table F Has been ( $F > F_{\alpha(K-1,N-K)}$ ) and the numeric value of the test function is in the critical area and the null hypothesis is rejected.

## 3-8. Summary

In this chapter, we discussed the research method used in this study, questionnaire, its validity and reliability, statistical population and structural equation modeling, and explained that the present study is a descriptive-survey study in order to Participation of companies with financial stress in social responsibility activities and its effect on the probability of bankruptcy of companies) Case study: Companies listed on the Tehran Stock Exchange. This research is also a development-applied research from the perspective of purpose because it seeks to provide a model based on the identified components. For this purpose, in this chapter, the research tools and methods used in this dissertation were presented.

# **Chapter Four:**

Data analysis

#### 4-1- Introduction

In this chapter, after collecting data, data are described and analyzed by statistical methods. In this way, first the descriptive findings are presented using descriptive statistical methods including mean, standard deviation, minimum and maximum value. Then, the findings related to the research hypotheses are presented using inferential statistics (regression methods for panel data). It should be noted that all calculations were performed using EVIEWS 7 software.

#### **4-2- Descriptive findings**

When a body of information is gathered for research, it is first necessary to organize and summarize it in a way that is meaningfully comprehensible. Descriptive statistical methods are used for this purpose. Often the most useful and at the same time the first step in organizing data is to sort the data according to a logical criterion. In other words, with proper use of descriptive statistical methods, the general characteristics of the members of the sample can be expressed and a general understanding of them can be obtained. Descriptive statistics are always used to determine and express the characteristics of research information. In most researches, presenting descriptive findings of research variables is the first step in presenting the findings.

This section provides a descriptive summary of research data including managers' social behaviors, corporate failure and financial stress.

Table 4-1 shows a descriptive summary of the research variables related to the companies under study. These data are related to 152 companies that have been registered during 7 years, ie from 1393 to 1399:

Table 4-1 is a descriptive summary of the research variables

Minimum	Maximum	Standard	Mean	Description Variable	Variable
		Deviation			
0	1	1.2	0.52	Probability of bankruptcy	BANKRTUPT
-4.08	9.53	2.19	0.69	Corporate social responsibility	CSR
-60.15	109.1	17.32	54	Profit margin growth index	PM
0.37	117.67	60.53	63.13	Sales turnover index	SALTURN
0.14	11.26	54.39	58.15	Index of tangible assets	INTAN
0.09	10.69	55.64	46.97	Current Ratios Index	CURNRATIO
0.18	8.56	62.37	60.48	Cash flow coverage index	OCFCOV
0.22	9.421	66.39	55.28	Financial leverage index	LEV
0.34	7.15	60.47	61.25	Company value index	BTM
0.28	110.4	54.20	63.87	Company size index	SIZE
0.22	114.9	56.39	64.22	Accumulated stock return	STKRET
0.22	114.7	30.37	04.22	index	
0.64	15.74	55.79	67.49	Yield Fluctuation Index	STKVOL
0.31	49.67	57.91	55.94	Growth index	GDP
0.29	48.20	58.20	63.25	Industrial production growth	IP
0.29	40.20	30.40	03.25	index	
0.45	109.47	56.94	64.87	Interest rate index	INT

Kolmogorov-Smirnov (K-S) test was used to evaluate the normality of the research variables. The results of this test showed that all variables in the study have a normal distribution because the value of Sig for all variables was less than 0.05.

Table 4-2 Results of Kolmogorov-Smirnov test

Significance level	Statistics		variable
_	variable	Description variable	
(Asym(sig))	(Z)		
0.003	4/406	Probability of bankruptcy	BANKRTUPT
0.000	2.369	Corporate social responsibility	CSR
0.002	4.239	Profit margin growth index	PM
0.000	3.102	Sales turnover index	SALTURN
0.002	4.312	Index of tangible assets	INTAN
0.000	5.692	Current Ratios Index	CURNRATI
	0,005		О
0.000	6.389	Cash flow coverage index	OCFCOV
0.025	7.258	Financial leverage index	LEV
0.001	4.297	Company value index	BTM
0.004	2.698	Company size index	SIZE
0.000	8.259	Accumulated stock return index	STKRET
0.002	7.415	Yield Fluctuation Index	STKVOL
0.000	6.628	Growth index	GDP
0.003	8.294	Industrial production growth index	IP
0.008	4.289	Interest rate index	INT

#### 4-3- Inferential findings

As mentioned in the first chapter, based on the objectives of the research, two hypotheses were proposed. Therefore, in the present chapter, using the collected data and considering the proposed regression models, these hypotheses are tested.

In this study, the research hypotheses are examined using the fit of regression models. As mentioned in the previous chapter, the research hypotheses are:

Main Hypothesis: Managers' social behaviors have a positive and significant effect on the probability of failure of companies with financial stress.

Hypothesis 1: Profit margin growth index has a positive and significant effect on the probability of failure of companies listed on the Tehran Stock Exchange.

Hypothesis 2: Sales turnover index has a positive and significant effect on the probability of failure of companies listed on the Tehran Stock Exchange.

Hypothesis 3: The tangibility of assets has a positive and significant effect on the probability of failure of companies listed on the Tehran Stock Exchange.

Hypothesis 4: Profit margin growth index has a positive and significant effect on the social behaviors of managers of companies listed on the stock exchange.

Hypothesis 5: Sales turnover index has a significant effect on the social behaviors of managers of companies listed on the Tehran Stock Exchange.

Hypothesis 6: The tangibility of assets has a significant effect on the social behaviors of managers of companies listed on the Tehran Stock Exchange.

In the following, we first examine the necessary assumptions for the use of regression methods and then fit the appropriate regression model for the research data and finally

examine the research hypotheses using regression methods for the panel data. we put. Therefore, it is necessary to first examine the significance of the variables.

# 4-3-1. Unit root test to check for maneuverability

The significance of variables or the trend of their changes over time is an effective factor in regression analysis. Therefore, one of the important characteristics that data must have is their permanence. The consistency of the data prevents false regressions between variables. So before estimating the model, we need to make sure that the variables are meaningful. Therefore, in this research, we first examine the hypothesis of data retention using the unit root test. Table 4-3 shows the results of this test. Given that the value of Sig is greater than 0.05, the assumption of data significance is accepted.

Table 4-3- Unit root test results

Sig	Test statistics	Model
0.48	15.51	The main hypothesis model
0.52	15.35	The first hypothesis model
0.44	10.56	The second hypothesis model
0.59	9.25	The third hypothesis model
0.43	11.28	Fourth Hypothesis Model
0.48	12.06	Fifth Hypothesis Model
0.29	8.46	Sixth Hypothesis Model

#### 4-3-2. F Limer test

To select the appropriate method, two methods of integrated data and panel data of F-Limer test are used. The results of this test are shown in Table 4-4. As can be seen in the table, the test results show that the Sig value calculated for this test is less than 0.05. Therefore, for both models, using the panel data method is preferable to the integrated data method.

**Table 4-4 F-Limer test results** 

Sig	Test statistics F	Model
<0.001	0.36	The main hypothesis model
<0.001	0.47	The first hypothesis model
<0.001	0.44	The second hypothesis model
<0.001	0.49	The third hypothesis model
<0.001	0.48	Fourth Hypothesis Model
<0.001	0.50	Fifth Hypothesis Model
<0.001	0.44	Sixth Hypothesis Model

#### 4-3-3. Hausman test

The panel data model can be fitted with two methods: the model with fixed effects (Fixed effects model) or the model with random effects (Random effects model). The Hausman test is used to examine which of the two models is more efficient and to select the appropriate model. The null hypothesis of this test is "model fit with random effects" and the opposite assumption is "model fit with fixed effects".

The results of this test are shown in Table 4-5. As shown in this table, the value of test statistics for all six models is not in the range of -1.96 to +1.96, which considering

that the value of Sig is greater than 0.05 for both models, so the null hypothesis of the test is accepted. And we use the model with random effects.

Table 4-5. Hausman test results

Sig	Test statistics	Model
0.24	4.17	The main hypothesis model
0.35	3.26	The first hypothesis model
0.30	2.59	The second hypothesis model
0.28	2.68	The third hypothesis model
0.22	4.21	Fourth Hypothesis Model
0.29	3.09	Fifth Hypothesis Model
0.17	4.06	Sixth Hypothesis Model

## 4-3-4- Durbin-Watson Test

Another assumption that is examined in regression methods is the independence of the residues from each other. If the assumption of residual independence is rejected and the residues are correlated with each other, it is not possible to use regression methods. The Durbin-Watson Test is used to check for the presence or absence of correlations in residues. The value of the Durbin-Watson Test statistic is between 0 and 4. If there is no sequential correlation between the residuals, the value of this statistic should be close to 2. If it is close to zero, it indicates a positive correlation, and if it is close to 4, it indicates a negative correlation. In general, if this statistic is between 1.5 and 2.5, it means that there is no correlation in the residues. In this study, considering that the value of this statistic is equal to 1.60, so it is concluded that there is no correlation in the residues and the residues are independent of each other.

## 4-3-5. F test to evaluate the significance of regression

F test is used to evaluate the significance of regression. The results of this test are shown in Table 4-6. According to this table, the value of F statistic is equal to 2290 for the first model and 1937 for the second model. Given that the value of Sig for both models is very close to 0, so given that the value of Sig is less than 0.05, it is concluded that the coefficients of the regression model are significant and can be used to analyze the data Used regression methods.

Table 4-6. F test results to evaluate the significance of regression

Sig	Test statistics	Model
<0.001	2290	The main hypothesis model
<0.001	1937	The first hypothesis model
<0.001	1345	The second hypothesis model
<0.001	1289	The third hypothesis model
<0.001	1457	Fourth Hypothesis Model
<0.001	2057	Fifth Hypothesis Model
<0.001	1982	Sixth Hypothesis Model

## 4-3-6. fitting a regression model

In this section, the results of fitting this regression model with random effects are presented to investigate the effect of independent research variables on the dependent variable.

Main Hypothesis: Managers' social behaviors have a positive and significant effect on the probability of failure of companies with financial stress. Hypothesis 1: Profit margin growth index has a positive and significant effect on the probability of failure of companies listed on the Tehran Stock Exchange.

Hypothesis 2: Sales turnover index has a positive and significant effect on the probability of failure of companies listed on the Tehran Stock Exchange.

Hypothesis 3: The tangibility of assets has a positive and significant effect on the probability of failure of companies listed on the Tehran Stock Exchange.

Hypothesis 4: Profit margin growth index has a positive and significant effect on the social behaviors of managers of companies listed on the stock exchange.

Hypothesis 5: Sales turnover index has a significant effect on the social behaviors of managers of companies listed on the Tehran Stock Exchange.

Hypothesis 6: The tangibility of assets has a significant effect on the social behaviors of managers of companies listed on the Tehran Stock Exchange.

$$Prob(BANKRTUPT_{(t+1,t+3)} = 1) = a_0 + a_1CSR_{(t-2,t)} + a_2PM_t$$

$$+ a_3SALTURN_t + a_4INTAN_t$$

$$+ a_5CURNRATIO_t + a_6OCFCOV_t + a_7LEV_t$$

$$+ a_8BTM_t + a_9SIZE_t + a_{10}STKRET_t$$

$$+ a_{11}STKVOL_t + a_{12}GDP_t + a_{13}IP_t + a_{14}INT_t$$

To test these hypotheses, the corresponding regression model previously introduced was fitted. The results of fitting this model are shown in Table 4-7. As can be seen in this table, the value of Sig is less than 0.05 for all variables. Therefore, all regression model coefficients are significant at the 5% error level. Therefore, the results show the confirmation of the significant effect of managers' social behaviors on the probability of failure of companies with financial stress.

The coefficient of determination (R2) is a measure that examines the appropriateness of the fitted regression line. This coefficient is always between 0 and 1, and the closer it is to 1, the more independent variables have the power to explain the behavior of the dependent variable. As shown in Table 4-7, the value of the coefficient of determination for the regression model of the first hypothesis is R2 = 0.57, which indicates that 57% of the behavior of the dependent variable is explained by independent variables.

Table 4-7 Results of fitting the regression model with random effects to test the hypotheses

Sig	T statistics	error coefficient	Estimating variable	variable
0.03	-21.5	4.01	-8.64	β.
<0.001	27.2	1.84	1.53	CSR
0.01	14.8	1.93	2.88	PM
<0.001	10.2	1.96	0.20	SALTURN
<0.001	9.02	0.03	0.302	INTAN
0.004	7.46	0.10	1.247	CURNRATIO
<0.001	2.49	0.069	0.267	OCFCOV
0.002	3.48	0.072	0.352	LEV

9.205	0.059	0.452	BTM
11.255	0.094	0.182	SIZE
8.52	0.14	1.205	STKRET
3.57	0.073	0.263	STKVOL
3.451	0.088	0.303	GDP
10.271	0.048	0.489	IP
13.719	0.010	0.139	INT
		0.57	$\mathbb{R}^2$
	_	0.43	Modified R2
	11.255 8.52 3.57 3.451 10.271	11.255     0.094       8.52     0.14       3.57     0.073       3.451     0.088       10.271     0.048	11.255       0.094       0.182         8.52       0.14       1.205         3.57       0.073       0.263         3.451       0.088       0.303         10.271       0.048       0.489         13.719       0.010       0.139         0.57

## 4-3-7. Variance Inflation Factor (VIF)

Variance Inflation Factor (VIF) was used to detect the presence of alignment. The calculated value is 3.5 for the first model and 4.3 for the second model. Because these values are less than 5, there is no alignment between the variables.

### 4-3-8. White test

Finally, to test the variance homogeneity of the regression model errors, we performed the White test. According to the results of this test, which are shown in Table 4-11, the assumption of error variance homogeneity in both models is accepted.

**Table 4-11 White test results** 

p-value	Test statistics	Model
0.45	1.60	The main hypothesis model
0.25	1.81	The first hypothesis model

0.21	1.24	The second hypothesis model
0.17	1.63	The third hypothesis model
0.26	1.74	Fourth Hypothesis Model
0.33	1.59	Fifth Hypothesis Model
0.12	1.069	Sixth Hypothesis Model

## 4-3-4- Durbin-Watson Test

Durbin-Watson Test are between 1.5 and 2.5, so it can be concluded that there is no problem of correlation between variables.

**Table 4-12 Durbin-Watson Test Results** 

<b>Durbin-Watson Statistics</b>	Durbin-Watson Test
1.92	Result

# 4-4. Results of hypotheses

The results of the analysis of regression methods for the panel data show that all seven hypotheses have been confirmed:

Table 4-13. Results of research hypotheses

Result	Hypothesis
confirmed	Main Hypothesis: Managers' social behaviors have a positive and
	significant effect on the probability of failure of companies with
	financial stress.
confirmed	Hypothesis 1: Profit margin growth index has a positive and
	significant effect on the probability of failure of companies listed on
	the Tehran Stock Exchange.

confirmed	Hypothesis 2: Sales turnover index has a positive and significant effect
	on the probability of failure of companies listed on the Tehran Stock
	Exchange.
confirmed	Hypothesis 3: The tangibility of assets has a positive and significant
	effect on the probability of failure of companies listed on the Tehran
	Stock Exchange.
confirmed	Hypothesis 4: Profit margin growth index has a positive and
	significant effect on the social behaviors of managers of companies
	listed on the stock exchange.
confirmed	Hypothesis 5: Sales turnover index has a significant effect on the
	social behaviors of managers of companies listed on the Tehran Stock
	Exchange.
confirmed	Hypothesis 6: The tangibility of assets has a significant effect on the
	social behaviors of managers of companies listed on the Tehran Stock
	Exchange.

# **4-5. Summary:**

In this chapter of the present study, data were analyzed in two parts. In the first part, descriptive statistics of variables were presented. Then inferential statistics were examined in order to test the hypotheses through statistical tests. In the next chapter, conclusions and suggestions based on research results and findings are presented.

# **Chapter Five:**

**Conclusion and Recommendations** 

#### 5-1 Introduction

In this research, the companies listed on the Tehran Stock Exchange were examined. For this purpose, in the first chapter, the generalities of the research, including the expression of the problem, the necessity of the research, the goals and hypotheses of the research were discussed. Then, in the second chapter, a review of literature and research background and necessary definitions and concepts were presented. In the third chapter, the research method and in the fourth chapter, the results of statistical tests were presented to test the research hypotheses.

This chapter provides an overview of research findings and interpretation of results and at the end offers suggestions for future research.

#### 5-2 Discussion and Conclusion

Selecting and implementing an appropriate and developed strategy in relation to performance improvement in organizations is considered as the final factor of success of a service organization, for this purpose and according to the mentioned cases, the organization and individuals can be influenced by factors. Variety, including social responsibility, according to which the organization accepts the basic principles and can reflect in its actions that these principles, among other things, include respect for human rights, fair treatment of the workforce, customers and Providers and environmental protection for the communities in which they operate, business units need financial resources for many reasons and in their financial decisions, they face both internal and external sources.

For this research, a sample of 152 companies listed on the Tehran Stock Exchange during the years 1393 to 1399 was selected. The data required to calculate the research

variables were extracted from the financial statements and reports submitted by the companies to the stock exchange, as well as the scheduling software and the companies' financial information CD. All calculations were performed using EVIEWS 7 software.

In order to answer the research questions, the research hypotheses were formulated as follows:

Main Hypothesis: Managers' social behaviors have a positive and significant effect on the probability of failure of companies with financial stress.

According to the results, this hypothesis was confirmed, this confirmation was based on the fact that the test statistics and the level of significance of the limit were observed. According to this confirmation, the hypothesis in terms of the effect of managers' social behaviors on the probability of failure of companies with financial stress was confirmed, this indicates that managers with different social behavior in terms of influencing organizational strategies can influence It has a lot of stress and consequently corporate bankruptcy.

Hypothesis 1: Profit margin growth index has a positive and significant effect on the probability of failure of companies listed on the Tehran Stock Exchange.

According to the results of regression analysis, considering that the significance level was less than 0.05 and the test statistic was within the allowable limit, this hypothesis is in line with the effect of profit margin growth index on the probability of failure of companies listed on the stock exchange. Tehran was approved. These results indicate that the profit margin growth index will be an important factor in causing bankruptcy in companies.

Hypothesis 2: Sales turnover index has a positive and significant effect on the probability of failure of companies listed on the Tehran Stock Exchange.

According to the results of regression analysis, considering that the significance level was less than 0.05 and the test statistic was observed, this hypothesis is in line with the effect of sales turnover on the probability of failure of companies listed on the Tehran Stock Exchange. Listed on the Tehran Stock Exchange were approved. Based on the results of this hypothesis, sales turnover can have a greater impact on bankruptcy due to the existence of financial indicators.

Hypothesis 3: The tangibility of assets has a positive and significant effect on the probability of failure of companies listed on the Tehran Stock Exchange.

According to the results of regression analysis, considering that the significance level was less than 0.05 and the test statistic was observed, this hypothesis is in line with the effect of the tangibility of assets on the probability of failure of companies listed on the stock exchange. Tehran Stock Exchange was approved. Based on this hypothesis, the tangibility of assets in relation to fixed and non-fixed assets plays an important role in bankruptcy and, consequently, creates financial stress in the companies under review.

Hypothesis 4: Profit margin growth index has a positive and significant effect on the social behaviors of managers of companies listed on the stock exchange.

According to the results obtained from regression analysis, considering that the significance level was less than 0.05 and the test statistic was observed, this hypothesis is in line with the effect of profit margin growth on social behaviors of managers of listed companies was approved.

Hypothesis 5: Sales turnover index has a significant effect on the social behaviors of managers of companies listed on the Tehran Stock Exchange.

According to the results of regression analysis, considering that the significance level was less than 0.05 and the test statistic was observed, this hypothesis is in line with the effect of sales turnover index on social behaviors of managers of companies listed on the stock exchange. Tehran was approved. The results of this section indicate that the company's sales turnover of positive and negative type is an important factor on the social behavior of managers in the direction of organizational decisions.

Hypothesis 6: The tangibility of assets has a significant effect on the social behaviors of managers of companies listed on the Tehran Stock Exchange.

According to the results of regression analysis, considering that the significance level was less than 0.05 and the test statistic was observed, this hypothesis is in line with the effect of the tangibility of assets on the social behaviors of managers of listed companies. Tehran securities were approved. Based on this index, the tangibility of assets can play an important role in the decision of managers and their behavior in order to adopt organizational policies.

This study was conducted to investigate the effect of managers' social behaviors on the probability of failure of companies with financial stress of listed companies. In this regard, by collecting data and statistical analysis, research hypotheses were examined. Finally, using the results, all research hypotheses were confirmed.

# 5-3. Research suggestions

1- Investors: According to the results of the research, it is suggested that users of financial statements always pay attention to the impact of social responsibility on

operating cash flow returns and company stock returns when analyzing the purchase of corporate shares.

- 2- Managers: Considering that the goal of managers is to provide the trust of company owners. Therefore, they should keep in mind that financing the company at a rate that can lead to financial performance and ultimately reduce the risk of lower stock prices. This is ultimately a factor for greater profitability of the company given the number of shares purchased will be more for the company.
- 3- Stock Exchange Organization: It is suggested to the Stock Exchange Organization to determine the real value of companies, clarify their information and better understand their performance, to adopt rules and regulations that, as far as possible, accept the companies from social responsibility to have more and to use equity to secure their capital structure.
- 4- Accounting Standards Development Committee: It is suggested to the Financial Accounting Standards Development Board to consider the positive effect of social responsibility on the operating cash flow performance and stock performance of the company in formulating accounting standards and to formulate binding laws to The entity shall disclose most of its capital structure items, such as out-of-company financing.

## 5-4. Suggestions for future research

Based on the results of the research findings, the following suggestions can be made.

1. It is suggested that along with other independent variables in this study, the effect of capital increase of companies listed on the stock exchange on financial performance should be examined.

- 2. Repeat this research by industry.
- 3. It is suggested that a similar study be conducted to examine the impact of social responsibility on expected returns.
- 4. Conduct the present research by performing modifying variables such as corporate governance or ownership structure.
- 5. It is suggested that other dimensions of social responsibility that are not considered in this study be examined in future research
- 6. It is suggested to rank the factors and criteria using fuzzy techniques and multicriteria decision making.

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