

## The impact of behavioural factors on investment decisions in light of the informational content of fraudulent financial reports

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**Abstract:** Reports and financial statements are the final product of the accounting information system that reflects the financial position of the economic entity as well as business results. These reports are supposed to provide appropriate information to many parties including investors and creditors to enable them to make decisions. Based on the information included within the financial reports, investors (current and potential) make the decision to maintain, increase, or abandon their investments, or initiate an investment decision. At this point, a number of behavioural factors emerge playing an influential role in directing investment decisions towards a certain route when relying on financial reports that involve fraud and deception, which are known as fraudulent financial reports.

The idea of this study starts from selecting some behavioural factors to find out the effects that these factors have in determining the direction of the investment decision based on fraudulent financial reports. The researchers have deliberately selected (9) behavioural factors as being the most important to achieve the purposes of the research.

**Keywords:** Accounting information systems/behavioural factors/fraudulent financial reporting

### 1. Introduction

The research is concerned with studying and determining the extent to which some of the selected behavioural factors (represented by: overconfidence, fear and greed, optimism and pessimism, feeling regret, avoidance of loss, collective behaviour (herd behaviour), anchoring and adjustment, hindsight and cognitive dissonance) as a single package, affect determining the direction of the investment decision in light of the information provided

by fraudulent financial reports that may mislead and defraud investors. To achieve the goal of the research, the researchers followed the following mechanism:

- Establishing a scientific methodology for research
- Presenting an overview of the literature related to the three research variables represented by each of the nine behavioural factors, investment decisions and fraudulent financial reports.
- Providing an analytical vision of the nature of the relationship between each of the three variables covered by the research.
- Conducting a field study in the Iraqi environment to diagnose the reality and nature of the relationship between the research variables and to prove the researchers' vision in this field.
- Drawing a set of conclusions and recommendations from the reality of the indicators produced by the field study.

## ***1.1 Research Methodology***

### **1.1.1 Research problem**

The research problem can be formulated with a set of questions:

A- In the context of dealing with and reviewing fraudulent financial reports in order to make decisions, do investors (existing and potential) make their investment decisions rationally, or are those decisions motivated by fits of feelings such as fear, greed, or pessimism..... ?

B- What are the behavioural factors that affect investment decisions in light of the accounting information provided by fraudulent financial statements and reports?

C- Do behavioural factors have an impact in determining the direction of the investment decision in light of the presence of financial statements and reports that involve a lot of misleading and fraud (also known as fraudulent financial reports)?

### **1.1.2 The purpose of the research**

The research aims to:

A- Highlight the importance of the behavioural dimension in investment decisions in light of the informational content of fraudulent financial statements and reports.

B- Link the behavioural aspects to investment decisions by seeking to expand the awareness of the establishment management related to the importance of behavioural factors and their impact on those decisions when submitting financial reports that involve misleading and fraud.

### **1.1.3 The importance of research**

The importance of the research is evident from its quest to employ psychology tools in explaining the interactions of (existing and potential) investors with financial statements that involve considerable misleading within the framework of the investment decision-

making process and the effects that behavioural factors can have in determining the direction of this decision.

#### 1.1.4 The research hypothesis

The research is based on the following hypotheses:

1) The main hypothesis of the research: "Behavioural factors affect the direction of the investment decision in the light of the informational content of fraudulent financial reports."

The following two hypotheses emerge from it:

A- "There is a significant correlative relationship for the behavioural factors in determining the direction of the investment decision in the light of the informational content of fraudulent financial reports.

The following sub-hypotheses emerge from it and as follows:

- ❖ The first sub-hypothesis: "There is a significant correlation between behavioural factors and the investment decision."
- ❖ Second sub-hypothesis: "There is a significant correlation between the investment decision and fraudulent financial reports."
- ❖ The third sub-hypothesis: "There is a significant correlation between behavioural factors and fraudulent financial reports."

B- "There is a significant effective relationship of behavioural factors in determining the direction of the investment decision in light of the informational content of fraudulent financial reports."

From it emerge the following sub-hypotheses:

- ❖ The first sub-hypothesis: "There is a significant effect relationship between behavioural factors and the investment decision."
- ❖ Second sub-hypothesis: "There is a significant effect relationship between the investment decision and fraudulent financial reports."
- ❖ The third sub-hypothesis: "There is a significant effect relationship between behavioural factors and fraudulent financial reports."

## 2. Behavioural factors

Behavioural factors are the behavioural bias that an investor subconsciously commits when making an investment decision. Bias refers to the difference between the way a person is supposed to think in order to reach the best possible results, and the way he/she thinks in reality... as the investment decision-making process cannot be separated from the behavioural formation of individuals. Thus, any investment decision-making process is not devoid of behavioural factors that affect it (McAuley, 2013).

Based on the foregoing, there are a number of behavioural factors that the literature has confirmed that they have an influential role in determining the direction of investors' decisions. We present the most important of them below:

### ***2.1 Overconfidence***

Overconfidence refers to an individual's tendency to inflate his/her knowledge and investment skills and overestimate his/her skills in the areas of investment activities where the investor believes that he/she is more knowledgeable or able to make an investment decision than others. Thus, this reflects his/her desire to exaggerate judgments and predictions (Rizzi, 2008). This belief affects the issue of attribution of causation, because individuals attribute their success to the results of their actions and misfortune when they fail, and this attribution is one of the results of strengthening overconfidence (Malmendier & Tate, 2005).

Based on the foregoing, overconfident investors have a strong belief in their ability to translate ambiguous information, and they are slow to process relevant information and statistics such as company revenue or information about others such as informed investors. Therefore, investors who are overconfident underestimate the information related to securities trading and are not only affected by financial costs, but also by failed choices (Barber & Odean, 2001).

Many studies have proven, by providing practical evidence, that investors are overconfident in their evaluation of their information and analytical tools as far as investment decisions are concerned (Barber & Odean, 2000) (Grinblatt & Keloharju, 2009).

### ***2.2 Fear and greed***

Feelings of fear and greed are one of the most important factors affecting investment decisions as the fear of investors leads them to rush to sell the purchased shares in times of fear of a drop in prices and their orientation towards collective selling. On the other hand, there is greed, which is one of the unmeasurable determinants of the market that directly affects investment decisions. The instinct of greed drives investors to invest with the motive of achieving more profits, which pushes stock prices to rise.

Investors try to be objective, rational and reliant on the best technology in terms of accounting, statistics, technology and analysis before they make any investment decision. However, they differ in their readings of events due to the different base from which they derive this reading. These are often motivated by fear of loss and greed for profit, and some investors even forget important rules in investing if they fall under the influence of these two factors (Ritter, 2003).

One study demonstrated the existence of a significant effect of the factor of fear and greed in determining the direction of investment decisions in the light of the informational content of the financial statements. It also demonstrated that the fear and greed of investors, especially beginners, leads them to imitate others because they believe that they are more knowledgeable in the financial market (Al-Imam and Shehab, 2015).

### ***2.3 Optimism and pessimism***

These two traits are related to the psychological health of the individual, as most of the relevant theories emphasized the association of optimism with happiness, perseverance, achievement and a positive outlook on life, while the feeling of pessimism is linked to failure and a negative outlook on life.

Investor optimism is one of the behavioural factors affecting the investment decision of investors (Lathif & Aktharsha, 2016). Optimism is a reason for many scientific discoveries and economic activities. However, when it comes to investment, it often leads to wrong decisions. For example, an investor may hear about a certain piece of information – a good one - but it needs not to have an impact on the value of the company's shares or that its impact is minimal. However, as a result of the investor's excessive optimism, he/she rushes towards buying the company's shares, believing that the company's shares will rise very dramatically. This leads to an overvaluation of the shares.

The feeling of optimism and pessimism affects many investors regarding the issue of making an investment decision as far as the financial statements are concerned and the comparison is made to decide on buying or selling shares of the company (Cen *et al.*, 2013).

One of the studies has proven that the reports and financial statements of companies, which contain accounting information are characterized by a set of qualitative characteristics, which are presented to investors for the purposes of making investment decisions, help optimistic or pessimistic predictions that play an active role in determining the direction of the investment decision (Al-Imam and Shehab, 2015).

#### **2.4 Remorse**

Feeling regret is a psychological mistake that arises from excessive focus on feelings of regret after making a decision, especially wrong decisions, with better alternatives (Pompian, 2006). In other words, the regret resulting from doing the action is greater than the regret resulting from not doing it. Other researchers believe that regret is a feeling that a person experiences when making a wrong decision. This means that the investor, in the context of avoiding regret, changes the direction of the investment decision in the company the shares of which have decreased in value and invests in other companies as far as the financial statements presented to the investor are concerned (Forgel & Berry, 2006).

#### **2.5 Loss Aversion**

It is the tendency of investors to avoid losses and their sensitivity to it more than profits. The attempt to avoid losses by investors plays the largest role in the investment decision-making process (Al-Zahrani and Hamdi, 2017). The investor who avoids losses is therefore a risk-averse. The level of investors' exposure varies when they are exposed to the same value of the loss, as they are less affected and sad when exposed to a loss after making profits, while they are more affected and sad when they are exposed to a loss after making losses.

Investors avoiding losses and risks can be understood as the common and usual behaviour of the majority of investors. However, this may lead to improper investment decisions that affect their wealth. (Odean, 1998).

#### **2.6 Collective behaviour (Herd behaviour)**

Collective behaviour is represented in the investors' rush to invest collectively and without the investor verifying the matter. This means that investors depend on their decisions on personal experiences affected by the decisions of those around them from the investors and on the expectations of the investors themselves and on the psychological

state of them. Collective behaviour occurs when an investor imitates the behaviour of other investors to achieve the safety of investments. Here, the focus is on similar investments or expected profits, given that the investment is a reflection of the business fraught with uncertainty. (Al-Imam and Shehab, 2015).

According to the herd behavior, the individual tends to imitate the actions of a group of individuals that behave similarly towards the information obtained by the community at the same time, whether they are rational or irrational behaviors. One of the reasons that explain this behaviour is the prevailing belief that a large group of people cannot be absolutely wrong, and the common belief that others know more than I do (Subash, 2012).

### ***2.7 Anchoring and Adjustment***

This concept emphasizes that investors put in their minds some reference points that may be an old price or an old value and ignore all new events and situations. This is called resistance to change as the individual subconsciously tends to exclude all events and facts that contradict his/her ideas and beliefs. He/she adheres to what confirms his/her positions and opinions (Edwards, 1968). According to this concept, individuals work, and in many decisions, to link the current situation with an idea or a previous reference point. This method is resorted to for the purpose of facilitating the decision-making process. Changing the reference point leads to a change in the decision made. The anchoring of ideas is often when dealing with a new or developing situation (Tversky & Kahneman, 1974).

### ***2.8 Hindsight***

Hindsight is the state in which the individual convinces him/herself, after the event, that the event was foreseen based on past events, that is, it was predictable even though it is difficult to foresee (Shiller, 2000).

Psychologists assert that hindsight is due to human instinct and the desire he/she possesses to create explanations for events and the claim that it was possible to predict events. Delayed realization results in the creation of false associations between cause and effect.

### ***2.9 Cognitive dissonance***

Cognitive dissonance is a psychological struggle that individuals suffer when they are presented with evidence that contradicts their beliefs or expectations. (Montier, 2002). It is a feeling whereby a person experiences psychological discomfort when two or more ideas collide in his/her mind, opposite to each other, or he/she is faced with two options or alternatives. He/she strives to avoid entering the circle of conflicting ideas (Festinger, 1957).

When the investor is between two alternatives, he/she is likely to fall into a contradiction after he/she reaches a decision, and the positives of the rejected alternative and the negatives of the chosen one will appear. This will be a challenge to the investor's confidence in the decision that was chosen (Pompian, 2006).

Based on the foregoing, the behavioural factors mentioned above constitute part of a wide range of factors reported by many studies in this field. These factors have been proven to affect determining the direction of the investment decision. In addition, we



thought the selection of the above-mentioned factors as the most influential in determining the direction of decision-making by investors who they view fraudulent financial reports for companies in order to make these decisions.

### **3. Investment decisions**

#### ***3.1 The concept of investment***

Investment is the investing of money with the aim of achieving additional future income and maximizing the investor's wealth (Reilly & Brown, 2011). Investment involves the investor sacrificing his/her money at a specific moment in time in order to achieve future returns.

As for the investor, he/she is the one who buys the shares of company after reviewing its performance and getting acquainted with its services and nature of its products, and reviewing its quarterly and annual financial statements (Baker & Wurgler, 2006). The current investor can make a decision to maintain, increase or abandon his/her investments based on the information contained in those financial reports (Lalević-Filipović, 2012), as well as the potential investor who is one of the users of accounting information on the basis of which the investment decision will be made or not.

#### ***3.2 Making investment decisions***

The decision-making process is part of the thinking strategies as it requires the use of considerable thinking skills represented by analysis, evaluation, deduction and stability so that the decision maker can be fully aware of his/her mental processes while making the decision. A decision is seen as an action that results in the choice of an alternative from a group of (Takemura, 2014). This indicates that it is a systematic, multi-level, information-based process that depends on the interaction of the decision-maker with the environment (Adinolfi, 2021). The decision can be expressed as the behaviour that requires the collection of opinions and facts after setting goals and assigning them to a scientific methodology that enhances the value of the results achieved from the decision taken.

Based on the foregoing, the investment decision is a process that includes all the stages of preparing the decision, from setting the goal, gathering information to determining alternatives and comparing them. This is in order to reach the best alternative that embodies the required decision. Thus, the investment decision is the essence of the process of allocating resources to the investor, and it is an important strategic decision for individual investors, so the decision should be sound and based on solid foundations, experience and knowledge

#### ***3.3 Principles for making investment decisions***

The investor should take into account the following principles on which the investment decision-making process is based (Robbins & Coulter, 2002):-

##### **A - Ascertainment cases.**

These are called so since they represent the ideal situation for making an investment decision, given the investor's knowledge of the available investment alternatives, the surrounding circumstances, and the results achieved by choosing one alternative without another. In other words, the investor is fully aware of the results of applying the alternatives, so he/she tends to choose the alternative that achieves the desired result.

#### **B- Uncertainties**

Under the case of uncertainty, the investor will not be aware of complete information about the available investment alternatives, their results and the surrounding circumstances, so the investment decision is made based on the behavioural trends and the information available to the investor.

**C- Cases of risk :-** Under this case, the investor is aware of a small part of the information related to the investment alternatives and the surrounding circumstances so that he/she is not sure of the results of applying the investment alternatives, which makes him/her move towards making the investment decision using the information he/she owns.

### **4. Fraudulent Financial Reports**

#### ***4.1 The concept of fraudulent financial reports***

The term fraudulent financial reporting represents the intentional existence of a material misstatement in the financial statements or financial disclosures, or the commission of an illegal act that has a direct material effect on the financial statements or financial disclosures (Beasley *et al.*, 2010). Fraudulent financial reports greatly affect companies and institutions where fraud is frequent, and at the same time affect the public's confidence in the capital markets. This is because attention is often drawn to prominent cases of fraudulent financial reporting that cause the public to question the credibility of the structures put in place to protect investing public. Fraudulent financial reporting is a major concern not only to the corporate world, but also to the accounting profession. Every year, the public witnesses major failures in the business world that are reported by the media. These failures result in events that weaken the public's confidence in the accounting profession and also weaken the credibility of auditors in their reporting function. These events were represented by unreported revenues, manipulation of losses, inflated sales, fraudulent writes-offs of uncollectible accounts, misappropriation of assets, and irregularities and various violations that led to the issuance of many court rulings, and then the formation of audit criteria.

Fraud is a highly controversial area, and the topic of the extent of the auditor's responsibility to prevent and detect fraud has been the subject of debate for many years (Porter, 1997) (Beattie *et al.*, 2001). Fraud is one of the areas of financial reporting that was responsible for the "expectations gap" between users of accounting information and auditors (Humphrey *et al.*, 1992).

The definition of fraud varies slightly in each country, but all definitions include the part that fraud is a violation of the law or a violation of the regulatory framework (Jones, 2011).



Fraud includes all methods that can be used ingeniously, imposed by one party to obtain more benefits from the other parties, and it includes cunning and unfair ways in which other individuals are deceived... According to (SAS, 99), fraud is an intentional act that results in a material misstatement of the financial statements being audited (Singleton & Singleton, 2010). Fraud is determined by using a general rule consisting of three elements: “a basic false statement with intent to deceive, evidence that the victim relied on this statement, and evidence of the damages caused to the victim as a result of his/her reliance on those false statements.”(Lord, 2010).

In general, there are three conditions that must be met to prove the occurrence of fraud (Singleton & Singleton, 2010):

- a) When management or other employees are motivated or under pressure, which provides a reason for fraud.
- b) the existence of a circumstance - for example, absence of control, ineffective control or the ability of management to bypass controls that provide opportunities for fraud to be committed.
- c) Those involved can justify the motive behind committing the fraud. The greater the incentive or pressure, the more likely the individual will rationalize acceptance to commit fraud.

Based on the concepts and conditions mentioned above as regards fraud, profit management is another form of fraud that must be curbed. The reason is that profit management appears when managers use their opinions in financial reports and in structuring certain transactions to change financial reports, either with the aim of misleading some shareholders about performance of the fundamental economic situation of the company or to affect contractual results that depend on the reported accounting figures (Healy & Wahlen, 1999). Therefore, the term profit management includes a wide range of legitimate and illegal actions carried out by the management that affect the entity's profits. The illegal acts are the disclosure or deliberate measurement of transactions or other events and conditions in a false accounting period or recording fictitious transactions, and the two forms constitute fraud (Public Oversight Board, 2000). The researchers stress that profit management, even if it does not violate accounting standards, still leads to inaccurate information about the company, which in turn will mislead investors in judging the company's performance (Rosner, 2003) (Abdul Rahman & Ali, 2006). This is what was shown by the results of one of the researches that found that profit management has a positive and significant relationship with fraud in financial reports (Hasnan *et al.*, 2008).

**4.2 Types of fraudulent financial reports** Fraud is divided into three types or patterns based on the actions committed (Association of Certified Fraud Examiners., 2016)

#### **A. embezzlement of assets**

This includes the misuse/theft of the assets or property of the Company or other parties. This is a form of fraud that can be easily detected because it is tangible or measurable (a specific value).

**B. Fraudulent data.**

This covers the actions carried out by company managers or government agencies to cover up the reality of financial conditions through financial manipulation in presenting financial statements for profit.

**C. Corruption:**

This type of fraud often cannot be detected because the parties working together have common advantages. These include abuse of power/conflict of interest, bribery, illegal admission and economic blackmail.

Based on (SAS No. 99) there are two types of the misstatements related to the auditor's judgment in assessing fraud. The first are those that arise from fraudulent financial reports and the second are those arising from misappropriation of assets. Misstatements arising from fraudulent financial reports are intentional misrepresentations or omissions in amounts or disclosures in the financial statements designed to deceive users of financial statements the effects of which are, in all material matters, not presented in accordance with generally accepted accounting principles. (Beasley et al., 2000).

Thus, fraudulent financial reports include the following types:

A) Manipulation, falsification or alteration of accounting records or supporting documents relating to prepared financial statements.

B) Intentional misstatement or omission regarding events, transactions or other significant information in the financial statements.

C) Deliberately misusing accounting principles related to the amount, classification, presentation or disclosure method in the financial statements.

As for misstatements arising from misappropriation of assets (misuse of assets), these represent the theft of assets belonging to the entity, where the effect of the theft causes the financial statements not to be presented in accordance with generally accepted accounting principles. The misuse of assets can also be done in other ways in addition to embezzlement or theft, which is deliberately inducing the entity's payment for goods or services not received.

**5. Behavioural factors, investment decisions and fraudulent financial reports - Analytical insights -**

In this section, we present some analytical insights about investors' behaviour regarding fraudulent financial reports and the information they provide that involve misleading and fraud, within the framework of the investment decision-making process. We begin this analytical vision with the following question:

- How will investors' behaviour be towards the information provided by fraudulent financial reports as far as thinking about making an investment decision in the relevant economic entity? Or in other words, will investors be under the influence

of certain behavioural factors that direct their investment decision in a certain direction in the context of dealing with fraudulent financial reporting information?

In fact, any investment decision is not free from the influence of some behavioural factors that push it in a certain direction, especially when the investor deals with information that involves misleading and fraud covered by fraudulent financial reports. We believe that there are a number of behavioural factors that have an active role in directing the investment decision in a certain direction in exchange for the information of fraudulent reports. These factors are represented as follows:

Overconfidence, fear and greed, optimism and pessimism, regret, loss aversion, collective behaviour (herd behaviour), anchoring and adjustment, hindsight, and cognitive dissonance.

The factor of overconfidence may have a certain degree of influence on the direction of the investment decision when dealing with fraudulent financial reports information based on the investor's strong belief in his/her ability to translate and evaluate ambiguous information (contained in fraudulent reports) as far as the investment decision is concerned.

As for the factor of fear and greed, it can have a certain degree of influence on the direction of the investment decision regarding fraudulent reports and the information they contain. The investor's fear may lead him/her to take a decision to get rid of his/her investments in the company that he/she is about to deal with its fraudulent reports based on his/her reading of the reality of the information of these reports and misconceptions about the possibility of a drop in the price of its shares. This is in contrast to the investor's greed, which may lead him/her to take a decision different from the one he/she makes when he/she falls under the influence of feelings of fear, ignoring the reality of the events behind the fraudulent information and in pursuit of achieving more profits.

The same analytical vision can be applied to each of the nine behavioural factors chosen by the researchers, which in fact have the largest and closest opportunity to influence the direction of the investment decision regarding fraudulent financial reports. At the same time, the possibility of the investor falling under the influence of these factors is greater than others in this field. However, all of that depends on the extent of the impact that each behavioural factor has on the investor and the nature of the investor's reading of the reality of the events reflected by the fraudulent information and the level of his/her awareness and convictions. This is so that he/she translates them into an investment decision in a certain direction. And we will try, through the field study in the following section, to prove these analytical visions on the Iraqi environment.

## **6. Field study**

This field study was conducted by designing a questionnaire. This was distributed to a random sample of the research community, which was represented by a number of

academics, professionals and investors in the Iraqi Stock Exchange. (100) responses for the questionnaire were collected for the purpose of conducting the statistical analysis.

### **6.1 Presentation of the descriptive statistics results:**

This part of the research seeks to present and analyze the results of the field study conducted by the two researchers using the descriptive statistics tools represented by the arithmetic mean and the standard deviation. This is to estimate the absolute dispersion of the answers of the sample members from the mean, with the aim of drawing a picture or a general framework for the preference of the respondents and their general orientations in relation to the research variables and by adopting a scale Likert (Likert) pentagram.

The questionnaire consisted of three axes: the first axis (behavioural factors), the second axis (making investment decisions), and the third axis (fraudulent financial reports). The first axis was designed to include (9) items derived from the nine behavioural factors that were chosen by the researchers as being the most important factors that need to be studied and subjected to analysis in the field of their impact in determining the direction of investors' decisions when they look at fraudulent financial reports for decision-making purposes. The nine factors are: overconfidence, fear and greed, optimism and pessimism, regret, loss aversion, collective behaviour (herd behaviour), anchoring and adjustment, hindsight, and cognitive dissonance.

As for the second and third axes of the questionnaire, they were designed so that each of them includes (9) items in a way that is consistent with the number of items of the first axis.

#### **6.1.1 Behavioural factors.**

The importance of this axis is shown in Table (1), which reflects the answers of the sample in terms of the mean, standard deviation, and coefficient of variation.

We note from the answers of the respondents to the items allocated to the first axis that the highest level of the answers was achieved by the sixth item included. The value of the arithmetic mean reached (4.33) and with a standard deviation of (0.67) and with a coefficient of difference of (15.42%), which reflects the importance of the respondents in the sample attach to the investor's following of the behaviour of the group of investors who behave similarly towards the information of fraudulent reports. The rest of the behavioural factors are sequentially graded to reach the lowest value of the arithmetic mean achieved by the third item where the value of the arithmetic mean was (4.12) and with a standard deviation of (0.67) and with a coefficient of variation (16.28%). This reflects the importance of the investor's exaggerated optimism leads to his/her rush to invest in the shares of a company based on receiving the news of the appointment of a new member to its board of directors and the opposite is true when pessimistic. We note from the results presented in Table (1) that most of the sample members as their answers were positive and to a large extent on all the items of the first axis (behavioural factors). It reflects a general arithmetic mean for the axis of (4.21) and a standard deviation of (0.31) and a coefficient of variation of (7.36%).

**Table (1) Analysis of Averages for (Behavioural Factors)**

Items	Answer										Arithmetic mean	Standard deviation	Variation coefficient %
	Totally agree		Agree		Neutral		Disagree		Totally disagree				
	The ratio% Repetitions		The ratio% Repetitions		The ratio% Repetitions		The ratio% Repetitions		The ratio% Repetitions				
1- The overconfidence factor refers to the investor's tendency to exaggerate his/her knowledge and investment skills. Therefore, he/she thinks that he/she understands financial information more clearly than others and interprets it in a better way.He has strong belief in his/her ability to translate ambiguous information reflected in fraudulent financial reports.	46 %	46	44 %	44	8 %	8	1 %	1	1 %	1	4.32	0.75	17.36
2-Investors differ in their reading of events and financial information when making any investment decision, as they are often motivated by the factor of fear of loss and then resorting to selling the purchased shares for fear of a drop in their prices. This is in addition to the greed factor for profit that drives them to invest in order to achieve more profits.	37 %	37	53 %	53	6 %	6	4 %	4	0	0	4.23	0.74	17.41
3-The investor's exaggerated optimism leads to his/her rush to invest in Company shares upon receiving the news of the appointment of a new member of the Board of Directors to manage it, for example, This is in the belief that the price of these shares will rise for this reason, The opposite is true for the investor's exaggerated pessimism, which may go in the opposite direction to this action.	28 %	28	57 %	57	14 %	14	1 %	1	0	0	4.12	0.67	16.28
4-Regret (as a behavioural factor) involves a psychological error that appears when an investor makes a wrong decision, It is imperative that he/she change the direction of this decision in the company the shares of which have decreased in worth, he/she invests in other companies as far as financial reports are concerned fraudulent, in order to avoid regret.	40 %	40	37 %	37	19 %	19	4 %	4	0	0	4.13	0.86	20.84
5-Affect the investor's attempt to avoid loss in the investment decision-making process, which is the common and usual behaviour of most	30 %	30	54 %	54	16 %	16	0	0	0	0	4.14	0.67	16.11

investors seeking to avoid losses and avoid risks as far as these reports are concerned..													
6-According to the herd behavior, the investor follows the behaviors of the group of investors who act similarly towards the information of fraudulent reports that they obtain at the same time, whether they are rational or unreasonable actions and that in his/her belief that not everyone can be wrong, and he/she does not dare to go against the general trend if he/she arrives at information contrary to this trend, so he/she follows it in investment.	43 %	43	48 %	48	8%	8	1%	1	0	0	4.33	0.67	15.42
7-According to the behavioural factor represented by adjustment and anchoring and in order to facilitate the process of making decisions investment, investors work to link the current situation with an idea or a previous reference point, which may be an old price, and they ignore all the contrary events and facts for their thoughts (It may be represented in part by fraudulent reporting information), but the establishment of ideas is often when dealing with a new situation.	39 %	39	47 %	47	13 %	13	1%	1	0	0	4.24	0.71	16.80
8-The hindsight factor indicates the state in which the investor persuades himself, after the event (i.e. making the investment decision), this event was expected based on events going on. This is his/her desire to create interpretations of events and predictions out.	36 %	36	50 %	50	13 %	13	1%	1	0	0	4.21	0.70	16.64
9-The cognitive dissonance factor is the psychological conflict and contradiction experienced by the investor when evidence is presented to him/her that contradicts his/her beliefs or expectations (represented by fraudulent reports).This conflict may occur after the investment decision is made between two alternatives are contradictory.	40 %	40	44 %	44	13 %	13	2%	2	1%	1	4.20	0.82	19.44
<b>The first axis</b>	38 %	38	48 %	434	12 %	110	2%	15	0%	2	4.21	0.31	7.36



### 6.1.2 Making investment decisions.

The importance of the second axis is evident in Table (2), which shows the arithmetic means, standard deviation, and coefficient of variation related to the answers of the members of the researched sample regarding the second axis included (making investment decisions). The results were distributed between the highest answer level and achieved by the first item included. The arithmetic mean value was (4.39) and a standard deviation of (0.75) and with a coefficient of variation of (17.10%). This reflects the very small amount of dispersion in the answers of the sample members and the important role of behaviour, which is represented by choosing an alternative from a group of alternatives, then analyzing it and following a set of procedures as an expression of the represented behaviour implementation of the decision. The rest of the items of this axis are graded sequentially from the highest to the lowest value of the arithmetic mean achieved by the seventh item where the arithmetic mean value reached (3.70) with a standard deviation of (0.98) and a coefficient of variation of (26.48%). This reflects the degree of individual differences in the sample regarding the nature of the goal of the investment decision maker who aspires to reach a feeling of security when based on financial reports. It is noted through the results presented in Table (2) that most of the sample members, whose answers were positive and to a large extent, agreed on all the items of the second axis (making investment decisions), which achieved a general arithmetic mean of (4.03) and a standard deviation of (0.22) and a coefficient of variation) 5.57%).

**6.1.3 Fraudulent financial reports:** The importance of the third axis is evident in Table (3), which shows the arithmetic means, standard deviation, and coefficient of variation related to the answers of the members of the researched sample regarding the third axis (fraudulent financial reports). The mean value was (4.38) with a standard deviation of (0.69) and a coefficient of variation of (15.82%). This reflects the amount of dispersion in that fraudulent financial reports contain practices such as unreported revenues, manipulation of losses, inflating sales, fraudulent write-offs of uncollectible accounts, misappropriation of assets and many other violations. The rest of the items of this axis progress sequentially until the lowest value of the arithmetic mean of the third item where the value of the arithmetic mean was (3.79) and a standard deviation of (0.77) and a coefficient of variation of (20.30%). This reflects the degree of difference among the sample regarding the role of fraudulent financial reports in events that weaken the confidence of investors and question the credibility of the structures established to protect them and the accounting and auditing profession.

From the foregoing, it can be noted, and through the results presented in Table (3), that most of the sample members, whose answers were positive to a large extent, agreed on all the items of the third axis (fraudulent financial reports). This achieved a general arithmetic mean of (4.02) and a standard deviation of (0.19) with a coefficient of difference of (4.67%).

Table (2) Analysis of Averages for (Make Investment Decisions)

Items	Answer										Arithmetic mean	Standard deviation	Variation coefficient %
	Totally agree		Agree		Neutral		Disagree		Totally disagree				
	The ratio%	Repetitions	The ratio%	Repetitions	The ratio%	Repetitions	The ratio%	Repetitions	The ratio%	Repetitions			
1-A decision is a conscious behaviour to choose an alternative from a group of alternatives, then analyze it and follow a set of procedures to implement this decision.	53%	53	35 %	35	10 %	10	2%	2	0	0	4.39	0.75	17.10
2-Investing involves the the investor’s sacrificing his/her money at a certain point in time in order to achieve future returns, which means investing money in order to achieve additional future income that will maximize his/her fortune.	50%	50	32 %	32	17 %	17	1%	1	0	0	4.31	0.79	18.27
3-The investment decision is the rational behaviour of the investor in the field of maximizing benefits at the lowest possible risks, provided that it includes all stages of preparing the decision, starting with defining the goal, collecting information, defining alternatives and comparing them to the best alternative embodied in the decision required.	21%	21	55 %	55	24 %	24	0	0	0	0	3.97	0.67	16.97
4-Making an investment decision is a systematic, multi-level process based on information and the interaction of the decision maker with the environment.	10%	10	70 %	70	17 %	17	3%	3	0	0	3.87	0.61	15.86
5-The safety and efficiency of investment decisions depend on the	32%	32	36 %	36	30 %	30	2%	2	0	0	3.9	0.84	21.

honesty and fairness of what the investor obtains of accounting information disclosed in the financial reports.		2	%		%						8		12
6-Behavioural factors and an understanding of these factors are inputs to the investment decision-making process and at the same time help predict the direction of these factors decisions.	41%	41	36%	36	19%	19	4%	4	0	0	4.14	0.86	20.89
7-The investment decision maker aims to achieve certain results that lead him/her to a state of feeling safe based on the financial reports.	23%	23	37%	37	28%	28	11%	11	1%	1	3.70	0.98	26.48
8-The investor should take into account the principles of making investment decisions that are based on behavioural trends as well as the available information he/she has.	25%	25	50%	50	22%	22	3%	3	0	0	3.97	0.77	19.43
9-The investor exhibits one of the three directions as far as making a decision investment is concerned, This includes decisions of buying, non-trading, and sale.	25%	25	43%	43	32%	32	0	0	0	0	3.93	0.76	19.22
The second axis	31%	280	44%	394	22%	199	3%	26	0%	1	4.03	0.22	5.57

**Table (3) Analysis of Averages for (Fraudulent Financial Reports)**

Items	Answer								Arithmetic mean	Standard deviation	Variation coefficient %		
	Totally agree		Agree		Neutral		Disagree					Totally disagree	
	The ratio % Repetitions		The ratio % Repetitions		The ratio % Repetitions		The ratio % Repetitions					The ratio % Repetitions	

1-Fraudulent financial reports represent the intentional existence of material errors in the financial statements or financial disclosures, or the commission of an illegal act that has a direct material effect on the financial statements or disclosures.	22%	2 2	44 %	44	33 %	33	1%	1	0%	0	3.8 7	0.76	19. 66
2-Fraudulent financial reporting results from the efforts of company management to deceive users of financial statements, including investors in order to influence their understanding to the performance and the profitability of the company, by using procedures that cause pressure that lead to fraudulent financial reports to achieve its interests.	28%	2 8	45 %	45	27 %	27	0%	0	0%	0	4.0 1	0.75	18. 59
3-Fraudulent financial reports lead to events that weaken the confidence of the investors and make them question the credibility of the structures set up to protect them and the accounting and auditing profession..	17%	1 7	49 %	49	30 %	30	4%	4	0	0	3.7 9	0.77	20. 30
4-Fraudulent financial reporting involves practices of unreported revenue, manipulating with losses, and amplifying the sales, fraudulent write-offs of uncollectible accounts, misappropriation of assets and many other violations.	50%	5 0	38 %	38	12 %	12	0%	0	0	0	4.3 8	0.69	15. 82
5-longer fraud one areas of financial reporting that involve a deliberate breach of the law and a set of practices imposed by one party to obtain more benefits from the other parties.	28%	2 8	52 %	52	19 %	19	1%	1	0	0	4.0 7	0.71	17. 55
6-Financial reporting fraud involves three types of misappropriation of assets and fraudulent data and corruption.	20%	2 0	49 %	49	30 %	30	1%	1	0	0	3.8 8	0.73	18. 78
7-Represents manipulation, falsification, or alteration in accounting records or supporting (evidence) documents related to the financial			61 %	61	19 %	19	2%	2	0	0	3.9 5	0.67	17. 02

data, one of the forms of fraudulent financial reporting.	18%	1 8											
8-represents an intentional misrepresentation or omission in connection with events or important transactions or information in the financial data, one form of fraud financial reporting.	40%	4 0	45 %	45	15 %	15	0%	0	0	0	4.2 5	0.70	16. 51
9-Represents the intentional misuse of accounting principles related to amount, classification, presentation or disclosure of the financial data, as a form of fraudulent financial reports	30%	3 0	37 %	37	33 %	33	0%	0	0	0	3.9 7	0.80	20. 08
The third axis	28 %	2 5 3	47 %	42 0	24 %	21 8	1%	9	0 %	0	4.0 2	0.19	4.6 7

#### 6.1.4 Discussion and testing of correlation hypotheses.

In this part of the field study, the hypotheses of the correlation between the study variables will be discussed and tested by testing the main research hypothesis included “behavioural factors influence in determining the direction of the investment decision in the light of the informational content of fraudulent financial reports”. The following hypothesis emerges from it:

##### The first main hypothesis

There is a significant correlation relationship of behavioural factors in determining the direction of the investment decision in the light of the informational content of fraudulent financial reports.

From this hypothesis, the following sub-hypotheses emerged:

- First sub-hypothesis: There is a significant correlation relationship between behavioural factors and investment decision.
- Second sub-hypothesis: There is a significant correlation relationship between the investment decision and fraudulent financial reports.
- The third sub-hypothesis: There is a significant correlation relationship between behavioural factors and fraudulent financial reports.

To test the validity of the first main hypothesis and the hypotheses emanating from it, the Pearson Correlation Coefficient was used to measure the correlation between the study variables. Table (4) shows the results obtained to test this correlation.

Table (4): values of Pearson's correlation coefficient

Variables	Behavioural factors	Make investment decisions	Fraudulent financial reports
Behavioral factors	1	0.507* 0.000	0.469* 0.000
Make investment decisions	0.507* 0.000	1	0.840* 0.000
Fraudulent financial reports	0.469* 0.000	0.840* 0.000	1

1- Table (4) shows that the value of the Pearson correlation coefficient between the variable (behavioural factors) and the variable (making investment decisions) amounted to (0.507), which is a positive value and statistically significant at the level of significance of (0.05).

This indicates the significance of the correlation between the herd behaviour represented by the investor following the behaviour of the group of investors who behave similarly towards the fraudulent reports information they obtain at the same time, whether it is rational or irrational behavior. This behaviour results in the investor sacrificing his/her money at a certain moment in time in order to achieve future returns. This means investing money in order to achieve additional future income that maximizes his/her wealth. Based on the significance of the statistically-significant correlational relationship, the first sub-hypothesis is accepted, which holds that “there is a significant correlation relationship between behavioural factors and investment decision-making.”.

2- Table (4) shows that the value of the Pearson correlation coefficient between the variable (making investment decisions) and the variable (fraudulent financial reports) reached (0.840), which is a positive, statistically significant value at a significant level (0.05). This relationship indicates that the investment decision-maker seeks to achieve certain results that lead him/her to a state of feeling safe based on fraudulent financial reports that involve a number of practices. These include unreported revenue, manipulation of losses, inflating sales, fraudulent write-offs of uncollectible accounts, misappropriation of assets and many other violations. Based on the significance of the statistically significant relationship in Table (4), the second sub-hypothesis is accepted, which holds that “there is a significant correlation between making investment decisions and fraudulent financial reports”.

3- Table (4) also shows that the value of the Pearson correlation coefficient between the variable (behavioural factors) and the variable (fraudulent financial reports) reached (0.469), which is a positive, statistically significant value at the significant level of (0.05). This relationship indicates that the overconfidence factor includes the tendency of the investor to amplify his/her knowledge and investment skills. Therefore, the investor thinks that he/she understands financial information more clearly than others and interprets it better and has strong faith in his/her ability to translate ambiguous information that is reflected in fraudulent financial reports represented by intentional misrepresentation or omission of important events,



transactions or information in financial data. In other words, based on the significance of the statistically significant correlation relationship in Table (4), the third sub-hypothesis was accepted, stating that "there is a significant correlation between behavioural factors and fraudulent financial reports".

### 6.1.5 Discussing and Testing Effect Hypothesis:

In this part of the field study, the impact hypotheses will be discussed and tested in relation to the study variables by testing the second main research hypothesis that says "there is a significant effect relationship for behavioural factors in determining the direction of the investment decision in the light of the informational content of fraudulent financial reports."

From this hypothesis, the following sub-hypotheses emerge:

- ❖ The first sub-hypothesis: There is a significant effect relationship between behavioural factors and the investment decision.
- ❖ Second sub-hypothesis: There is a significant effect relationship for investment decision and fraudulent financial reports.
- ❖ The third sub-hypothesis: There is a significant effect relationship between behavioural factors and fraudulent financial reports.

1-To test the first sub-hypothesis (there is a significant effect relationship between the behavioural factors and the investment decision), this will be done by assuming that there is a significant relationship between the behavioural factors (X) and investment decision (Y) and it can be expressed by the following linear regression equation:-

$$Y = a + \beta X$$

where

*Y= decision investment, X = factors behavioural ,  $\beta$ = The equation tendency (amount change in Y which occurs as a result of a change in X ), a= fixed statistic unit.*

The above equation shows that the behavioural factors are a function of the real value of the investment decision. Table (5) shows the results of the analysis of variance (ANOVA) and the coefficients of testing the correlational effects.

Table (5) results of linear regression analysis of the relationship between behavioural factors and investment decision

ANOVA							
Sample	Sum of squares	Degree of freedom Df	Mean squares	R	$R^2$	Calculated values F	Sig level
regression	2.599	1	2.599	0.507	0.257	33.828	0.000
Residual value	7.530	98	0.077	-		-	-
Total	10.130	99					
Coefficients							
Sample	Non-standard coefficients $\beta$ standard error		Standard coefficients Beta		T	Sig Level	
Constant	1.318	0.499	-		3.641	0.010	
behavioural factors	0.719	0.124	0.507	5.816		0.000	

Based on the results shown in Table (5), it is clear that the behavioural factors have a correlation with and an effect on the investment decision, as this effect and the correlation constitute a linear regression model in terms of the strength of the correlation and the explanatory and influence ability in the investment decision variable. The value of the parameter (R) for this model (0.507), which is statistically significant at the significance level of (0.05). This significance is supported by the T-test value of (3.641), which is greater than its tabular value (1.984) and this indicates a strong influence of the variable (behavioural factors) on the variable (decision investment). Also, the value of (T = 3.641) is significant and at the significance level of (Sig = 0.010). This indicates that the regression curve is sufficient to describe the relationship between behavioural factors and the investment decision as very high. This in turn proves the validity of accepting the first sub-hypothesis, according to the linear regression equation as follows:

$$Y = 1.318 + 0.719X$$

It is clear from the value of the marginal propensity coefficient ( $\beta$ ) of (0.719) that increasing the behavioural factors variable by one unit will lead to an increase in the investment decision variable by (71.9%). And based on the results of ( $\beta$ ) in Table (5), the first sub-hypothesis was accepted: "There is a significant effect relationship between behavioural factors and the investment decision".

2- To test the second sub-hypothesis that states: "There is a significant effect relationship for the investment decision and fraudulent financial reports.", this will be done by assuming a

significant relationship between behavioural factors (X) and fraudulent financial reporting (Y) and can be expressed by the following linear regression equation:

$$Y = a + \beta X$$

The above equation shows that the investment decision is a function of the true value of fraudulent financial reports. Table (6) shows the results of the analysis of variance (ANOVA) and the coefficients of the relationship test.

Table (6) results of linear regression analysis of the relationship between investment decision and fraudulent financial reports

ANOVA							
Sample	Sum of squares	Degree of freedom Df	Mean squares	R	R <sup>2</sup>	Calculated values F	Sig level
regression	3.220	1	3.220	0.840	0.705	234.056	0.000
Residual value	0.336	98	0.003	-		-	-
Total	3.5557	99	-		-	-	-
Coefficients							
Sample	Non-standard coefficients $\beta$ standard error		Standard coefficients Beta		T	Sig Level	
Constant	<u>0.372</u>	0.119	-		3.123	0.002	
investment decision	<u>0.906</u>	0.030	0.952		<u>30.626</u>	0.000	

Based on the results shown in Table (6), it is clear that the investment decision has a correlation with and an impact on the fraudulent financial reporting variable. The influence and correlation constitute a linear regression model in terms of the strength of the correlation and the explanatory and influence ability in the fraudulent financial reporting variable. The value of the parameter (R) for this model is (0.840), which is statistically significant at the significance level of (0.05). Also, the value of the coefficient of determination (R<sup>2</sup>), which represents the explanatory power of the linear regression model, has reached (0.705). This value means that the linear regression model and through the variable (investment decision) can explain the percentage (70.5%) of the difference and variance in the variable (fraudulent financial reports). This indicates that there is a statistically significant influence relationship at the significance level of (0.05). It is clear from Table (6) that the value of (T= 3.123) is significant (Sig= 0.002). This indicates that the regression curve is sufficient to describe the

relationship between the investment decision and fraudulent financial reports and with a very high significance level according to the linear regression equation as follows:

$$Y = 0.372 + 0.906X$$

It is clear from the value of the marginal coefficient ( $\beta$ ) of (0.906) that an increase in the investment decision variable by one unit will lead to an increase in the variable (fraudulent financial reports) by (90.6%). Based on the results in Table (6), the second sub-hypothesis was accepted, which states: "There is a significant impact relationship for the investment decision and fraudulent financial reports."

3- Testing the third sub-hypothesis: "there is a significant effect relationship between behavioural factors and fraudulent financial reports" that will be done by assuming the existence of a significant relationship between behavioural factors (X) and fraudulent financial reports (Y) and it can be expressed by the following linear regression equation:-

$$Y = a + \beta X$$

The above equation shows that behavioural factors are a function of the true value of fraudulent financial reports. Table (7) shows the results of the analysis of variance (ANOVA) and the coefficients of relationship test.

Table (7): Results of linear regression analysis of the relationship between behavioural factors and fraudulent financial reports

ANOVA							
Sample	Sum of squares	Degree of freedom Df	Mean squares	R	$R^2$	Calculated values F	Sig level
regression	0.783	1	0.783	0.469	0.22	27.684	0.000
Residual value	2.773	98	0.028	-		-	-
Total	3.557	99	-	-		-	-
Coefficients							
Sample	Non-standard coefficients $\beta$ error standard		Standard coefficients Beta		T	Sig Level	
Constant	2.847	0.223	-		12.743	0.000	
behavioural factors	0.278	0.053	0.469 5.262			0.000	

In view of the results shown in Table (7), it is clear that behavioural factors have a correlation with and impact on the fraudulent financial reporting variable. This influence and correlation formed a linear regression model in terms of the strength of the correlation and the explanatory and influence ability in the fraudulent financial reporting variable. The value of the parameter (R) for this model (0.469), which is statistically significant at the significance level (0.05), indicates a strong influence relationship between the variable (behavioural factors) and the variable (fraudulent financial reports). Also, the value of the coefficient of determination (R<sup>2</sup>), which represents the explanatory power of the linear regression model, has reached (0.22). This value means that the linear regression model and through the variable (behavioural factors) can explain 22% of the difference and variance in the dependent variable (fraudulent financial reports). It is clear from Table (7) that the statistical results show that the value of (T=12.743) is significant (Sig = 0.000). This indicates that the regression curve is sufficient to describe the relationship between behavioural factors and fraudulent financial reports with a high level of significance. This proves the validity of the hypothesis and according to the linear regression equation as follows:

$$Y = 2.847 + 0.278X$$

It is clear through the value of the marginal coefficient ( $\beta$ ) of (0.278) that the increase in the variable (behavioural factors) by one unit will lead to an increase in the variable (fraudulent financial reports) by (27.8%). And based on the results in Table (7), the third sub-hypothesis was accepted: "There is a significant effect relationship between behavioural factors and fraudulent financial reports." And based on the acceptance of the first, second and third sub-hypotheses of the second main hypothesis, the second main hypothesis states "there is a significant influence relationship for behavioural factors in determining the direction of the investment decision in the light of the informational content of fraudulent financial reports."

According to the results obtained in Tables (4), (5), (6), (7), which include an analysis of the correlation and influence of the study variables, the first and second main hypotheses are accepted, as well as the sub-hypotheses emanating from them. Referring to this, the main hypothesis of the research stated "behavioural factors influence in determining the direction of the investment decision in the light of the informational content of fraudulent financial reports".

## 7. Conclusions and Recommendations

### 7.1 Conclusions

- 1- The results and the answers of the respondents to the first axis (behavioural factors) in Table (1) showed their agreement with a high degree as regards the content of the items included in the axis. The most important of these is the investor's following the behaviors of the group of investors who behave similarly towards the information of fraudulent reports that they obtain at the same time. These include rational or irrational actions of believing that not everyone can be wrong, and he/she does not dare to go against the general trend if he/she reaches information contrary to this trend. Therefore, he/she follows it in investment, then the rest of the items that refer to behavioural factors are graded depending on the degree of agreement of the sample members.
- 2- The results and the answers of the respondents to the second axis (making investment decisions) showed their agreement with a high degree as regards the

content of the items included in the axis. The most important of these is that the decision is a conscious behaviour to choose an alternative from a group of alternatives and then analyze it and follow a set of procedures to implement this decision. This confirms the logicity of what the two researchers have argued as regards the influence of behavioural factors in determining the direction of the investment decision since the decision is first and foremost a behaviour.

- 3- The results and the answers of the respondents to the third axis (fraudulent financial reports) in Table (3) showed their agreement with a high degree as regards the content of the items included in the axis. The most important of these results holds that fraudulent financial reports involve practices represented by unreported revenues, manipulation of losses, inflating sales, and write-offs fraudulent uncollectible accounts, misappropriation of assets and many other violations.
- 4- Table (4) shows the value of the Pearson correlation coefficient between the research variables, where their value was positive and statistically significant. This result indicates that the investment decision-maker seeks to achieve certain results that lead him/her to a state of feeling safe when dealing with fraudulent financial reports that involve practices represented by unreported revenues, manipulation of losses, inflating sales and other. This emphasizes the influence of behavioural factors in determining the direction of the investment decision.
- 5- The variable (behavioural factors) was able to explain (71.9%) of the total deviations in the values of the variable (taking the investment decision), which was evidenced by the value of the coefficient of determination ( $R^2$ ) and (22%) of the total deviations in the variable (fraudulent financial reports). This indicates that the behavioural factors related to the behaviour of the group of investors who act similarly towards the information of fraudulent reports tend to sacrifice their money at a certain moment in time in order to achieve future returns.
- 6- The research proved, through the field study, that there is an effect of behavioural factors in determining the direction of the investment decision in the light of the informational content of fraudulent financial reports, by proving all the main and sub-hypotheses of the research.

## 7.2 Recommendations

1- Given the effects that behavioural factors have on investors' decisions and trends, which often lead to irrational investment decisions due to the investment decision being affected by bouts of feelings of fear, greed, pessimism or optimism and other behavioural factors, attention should be increased to understanding these factors and realizing their significant impact on the behaviour of investors regarding fraudulent reports information. This can be done by spreading awareness among the parties affected by the investment process, whether they are preparing financial reports or using them, about the effects that these factors have on investment decisions. Based on the fact that behavioural factors provide a broader and more accurate explanation for many investment decisions.

2- The producers of financial reports should pay attention to the behaviour of the users of these reports who are affected by environmental changes and what is reflected in the selection of accounting methods that help the economic unit direct the behaviour of investors in the desired direction and to achieve its interests.

3- Seeking to help investors make more rational decisions regarding fraudulent reports information. This can be done by adopting policies that limit the impact of behavioural factors as they are directed to all parties benefiting from their information, while recognizing the fact



that behavioural factors are an inherent part of human nature in the field of decision-making investment.

4- Establishing research centers concerned with this issue and bearing the responsibility of conducting studies in Arab countries.

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