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Policies to Gain Investors' Confidence in Relation to Unexpected Profits with the Moderating Role of Historically Low Profit Management (Experimental Evidence: Iran's Capital Market)

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ABSTRACT

The fact that the past feelings and behaviors of company managers affect investors, and assessing its impact on the capital market, paves the way for managers and investors to make opportunistic choices. The purpose of this study is to investigate the relationship between past earnings management and earning investor trust using financial information related to companies listed on the stock exchange during the period 1394 to 1399. For this purpose, multivariate linear regression methods based on panel data and fixed effects methods have been used. The results of this study show that companies 'unexpected earnings do not have a significant effect on earning investors' trust and the impact of the company's low earning management in the past has not affected this relationship. However, stock prices have reacted negatively and significantly to earnings, and companies' past low earnings management has moderated this effect. In other words, it can be said that earnings management in the past reduces the stock price response to earnings announcements.

1. Introduction

In the capital market, accounting information is one of the most important information that allows users and providers of capital to analyze the potential returns of investment opportunities to monitor how their resources are used.

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Based on this, many capital market players, researchers and policy makers pay a lot of attention to accounting information, including profit. The importance of accounting profit is important from different aspects. Including information content from the capital market to help investors make decisions, which also emphasizes the relevance and timeliness of profits. In addition, the accounting profit is used to analyze the company's performance and some measures such as the amount of managers' bonuses. This feature also emphasizes the reliability of reported profits. Based on the research conducted in the field of the information content of profit, the change in stock price when announcing the accounting profit indicates the information content of the profit (Aghaei et al., 2013). Profit forecasting and profit announcement of companies are also known as one of the evaluation criteria of companies by investors. This measure provides information to market analysts to evaluate the company's performance. In a situation where the company's profit announcement has informational content, it will affect the behavior of investors and cause their reaction and as a result the market reaction and create abnormal returns (Salehi et al, 2013). Knowing how investors react to companies' profit announcements can help in making optimal decisions. The lack of sufficient information and lack of market confidence can affect the reaction of investors to unexpected profits, and in this situation, the announcement of profits and the receipt of information signal will renew the previous beliefs of investors regarding the future situation. According to Bayes' Law, rational people update and revise their beliefs after receiving new information from the market. In other words, receiving new information from the market, such as the annual profit announcement of companies, causes learning and reduces market mistrust (Pastor and Veronesi, 2009).

Recent literature suggests that public trust, that is, the trust that market participants place in the overall integrity of the institutional, legal, and political environment, is critical to capital markets. Investor sentiment is considered a belief about the cash flows and risks of an investment that is not justified by available data. These sentiments indicate an optimistic or

pessimistic return expectation compared to the average profit. As a result, optimism in the capital market, in addition to investors' decisions, also encourages managers to take actions such as paying dividends, investing, changing the capital structure, and managing profits (Miranda et al., 2018).Previous empirical research (Eugster and Wagner, 2021) in the capital market focused a lot on the reaction of users to profit news and information, because profit is one of the most important performance criteria for investors and company management considers profit as the most important information and the best tool. It pays attention to communicating with external stakeholders. Meanwhile, controlling for other factors, the earnings response coefficient is an indicator that shows how much the market trusts a company's earnings news to predict the future. This is especially important since reporting "alternative facts" about earnings (ie, misrepresenting earnings) is commonplace in the corporate world. What is discussed in connection with the transfer of information and internal messages of the company to the outside is the issue of information transfer management. Profit management is one of the prominent concepts of our study background. A common and problematic point in this regard is that companies act to mislead some stakeholders in terms of earnings management, while Jensen (2005) explicitly refers to earnings management as a practice of "lying". Therefore, a firm historically engaged in low earnings management may be more committed to accurate reporting, and this may increase the reliability of reported earnings in the future. Contrary to the previous approach, managers may, in accordance with their own interests, exploit the earnings report to convey private and confidential information about the company's future performance (For example, Gunny (2010) shows that firms that are more involved in real earnings management to achieve corporate goals have better operational performance compared to firms that do not engage in real earnings management. One explanation for this phenomenon is that managers use earnings management as a signal. In addition, investors may consider the future returns of companies with high

earnings management higher than the returns of companies with low earnings management. Also, the market may use information on historical earnings management behavior by relying on management's commitment to reliable reporting. When managers resist the incentive or opportunity to manage earnings, the market should infer from this behavior that management is more trustworthy. In other words, in the presence of "social norms" that show earnings management behavior, a company that shows a high commitment to refraining from earnings management is seen as more credible. Earnings information from companies with higher earnings management in the past is more difficult to interpret quickly because the information may be perceived as more uncertain. Muliati et al. (2021) believe that earnings management does not harm investors, but may harm other stakeholders of the company, i.e. society, employees, local communities and managers. For example, earnings management by Enron's top management harmed its stakeholders by terminating employees' jobs, losing employee pension funds, and reducing state tax revenue. Due to this issue, profit management can also reduce the trust of stakeholders in the company. As a result, stakeholders will respond negatively to the company, such as increased shareholder pressure, government sanctions, employee walkouts, consumer boycotts, increased pressure to lower prices, lower sales revenue, boycotts by environmental activists, and negative media coverage; all these negative responses can threaten the stability of the company's operations. Many investors also believe that business sustainability is more important than excellent financial performance in a given period. Therefore, companies must generate economic benefits and be ethically responsible to all stakeholders, especially society and the environment. This can be a positive consequence for building investors' confidence in the information published by the management, such as profit and profit changes.

Because the market reacts to historical earnings management history, companies' low historical earnings management makes their future earnings forecasts more reliable. Since analysts and investors also act based on the

company's future profit forecast, therefore, it is expected that the company's historically low profit management will attract investors' confidence. Similarly, when the firm's earnings management is upward, the forecast of the firm's future earnings will be more uncertain. Therefore, analysts and investors will react to this type of earnings management and their trust in the company will decrease (Eugster and Wagner, 2021). In the short term, managers are exposed to incentives to abuse opportunities, which leads to a bias in the company's profit forecast. Hence, there are two opposing theoretical hypotheses about management's motivation for financial reporting (Lee, 2017). One is the hypothesis of opportunistic disclosure, which harms the value of the firm, and the second is the hypothesis of transparent disclosure, which is the hypothesis that efficient managerial behavior increases the value of the firm. With respect to profit forecasting, managers have significant discretion that affects forecast accuracy and disclosure opportunism, which weakens the relationship between accounting performance and a firm's economic performance (Chi et al., 2008). Management's forecast of reported earnings is a critical source of insider information about future returns and risks for investors. Nevertheless, profit forecasting bias can mislead investment decisions. As it is clear from the title of the article, this research after explaining the importance and necessity of the article in the introduction section, then in other sections, for this purpose, in the next section, the theoretical foundations and background of the research related to profit management and gaining investors' trust are stated. In the following, the research methodology and variables are explained and then the results of the data analysis are presented. Finally, the obtained results are analyzed.

2. Theoretical frameworks and Literature Review

Earnings management is considered as a key indicator of financial reporting quality. In the literature, a comprehensive definition of earnings management is provided by Healy and Wahlen (1999). According to Healy and Wahlen,

Earnings management occurs when managers use judgment in financial reporting and transaction structuring to alter financial statements in order to mislead some stakeholders about the company's underlying economic performance or the contractual results reported in the accounting numbers. It depends, have an effect. Similarly, Leuz et al., (2003) defined earnings management as insider changes that affect economic performance recorded in financial reporting with the aim of influencing contractual interests or misleading some stakeholders. Callao et al., (2014) more recent definition combines many elements covered by previous researchers. This definition states that earnings management is a targeted intervention in financial reporting designed to achieve earnings goals with different accounting practices." However, it can be done without violating the accounting rules and regulations by taking advantage of optional features in accounting policies. This action may mislead stakeholders and cause them to make decisions based on financial reports that they would not otherwise be able to make. Earnings management has the same goals as fraud in influencing reported earnings and the quality of corporate financial reporting. However, earnings management does not violate accounting principles, while fraud does (Ronen and Yaari, 2008). However and Howe (1999) stated that it is possible for companies to commit fraud when they have exhausted all opportunities to manage earnings with the accrual method. Perols and Lougee (2011) documented that firms with major frauds applied more earnings management in previous years. However, it is not a prerequisite that a company must begin earnings management before engaging in fraudulent practices. There are different conceptions of earnings management. Furthermore, there is no consensus among researchers on a single definition of earnings management. However, most studies share some aspects in common. These aspects include managers' intention to obtain their own interests as the primary motivation behind earnings management and the adoption of actual earnings management or accrual earnings management. In addition, previous researchers have paid much attention to earnings

management through discretionary accruals (Callao et al., 2014). This means that the earnings management literature has focused on accrual earnings management, while actual earnings management is an area that needs further investigation. In addition, more effort should be made to develop comprehensive definitions of earnings management that take into account all types of earnings manipulation.

In accounting and finance literature, earnings management practices have been classified into two general categories, i.e. accrual earnings management and actual earnings management (e.g., Gunni, 2010). This classification is based on the profit mix, including accruals and operating cash flow (Xu et al., 2007). Managers may choose one or both to meet their desired revenue goals. Accrual management occurs when company management uses its authority to change accruals to change reported earnings and mislead shareholders about the company's performance (Dechow and Skinner, 2000). On the other hand, real earnings management refers to earnings management through normal manipulative activities to influence reported earnings using techniques such as sales, overproduction, discretionary spending, and gains from the sale of fixed assets (Brown et al., 2015). Accrual profit management is different from actual profit management based on the following points. First, accrual earnings management deals with accounting principles and choices. Therefore, it has no strong effect on cash flow operations, while real earnings management arguably has more pronounced long-term cash flow implications (Roychowdhury, 2006). Second, accrual earnings management has a high risk of auditor scrutiny compared to actual earnings management, which is less likely to be detected by auditors' scrutiny (Gunny, 2010). Thirdly, accrual profit management has a time limit on exercises and can be done every quarter or at the end of the year. Therefore, managers face uncertainty as to which adjustments will be accepted by the auditor (Barton and Simko, 2002). However, real profit management should be arranged during the year with operational activities or during the last quarter of the year (Ising, 2013). And fourth, actual

activities are under the control of a manager, while accrual activities are subject to auditor approval (Gunny, 2010). Earnings management analysis involves identifying the discretionary use of accruals by managers and can be done through several structures (Pae, 2005). Total accruals derived from accrual accounting are the difference between earnings and cash in a particular period. As a related measure, earnings must be reliable because of its use for a variety of purposes (paying shareholders, forecasting future cash flows, debt covenants). Accruals, despite making profits more informative, become less reliable as opportunistic use increases. Therefore, managers should consider the moment and position of the company when managing earnings, because earnings are ultimately priced by the market (Sloan, 1996). There are several incentives for earnings management: managers' pay, liabilities, regulatory issues, market expectations, and valuation, which are the subject of empirical research analysis (Miranda et al., 2018). Some studies analyze investors' sentiment index and their reaction in earnings management performance based on discretionary accruals after moments of market optimism, considering managers' ability to use such conditions in a beneficial way (Ali and Zhang, 2015). These studies state that in addition to influencing the level of earnings management, the inhibitory role of analysts may influence the opportunistic behavior of managers in moments of market optimism.

Investor sentiment is an existing belief about future cash flows and investment risk that is explained by data that are not available (Baker and Wurgler, 2007). Therefore, unreasonable expectations of returns reflect a situation where investor sentiment is high (investors are optimistic). Lee, Shleifer, and Thaler (1991) highlight the existence of unpredictable fluctuations in investors' expectations, whose returns are not guaranteed by asset values, indicating the impact of investor sentiment on asset values. This argument is also supported by Brown and Cliff (2005) who report on the impact of investor sentiment on assets and find that prices are overvalued when the market is bullish. Mispricing due to arbitrage restrictions, visible

through measures such as the ratio of book value to market capitalization, becomes a source of information for insiders, such as managers, who can use this information—superior to other market participants—and motivation. Take advantage of this. In this way, investors' sentiments become visible by creating a chain of events whose external shock may be observed in any part of the chain. Hence, some measures may be taken to show investor sentiment, such as surveys, retail investor transactions, mutual fund flows, trading volume, etc. (Baker and Wurgler, 2007). The relationship between investor sentiment and confidence and discretionary earnings management is determined by opportunism during periods of optimism. The mediating role of analysts is a contribution to the literature that points to the inhibitory effect of earnings management, even in moments when asset prices diverge from their fundamental value. In this context, when market participants evaluate the companies followed by analysts, they will have more confidence when using the company's figures in their investment analysis or valuation process. Some empirical evidence suggests the use of periods of high sentiment to provide positive accruals in order to achieve earnings forecasts estimated by analysts (Mota et al., 2017). However, empirical evidence shows that the main goal of companies is that the company's profit meets analysts' estimates and does not exceed those (Kent and Routledge, 2017). Additionally, because of analysts' less optimistic view of corporate profits, managers are discouraged from increasing accruals, even if they end up doing so (Hribar and McInnis, 2012). In this way, considering the difficulty of investors in clearly identifying the components of profit in high emotional periods and the skill of managers in identifying such moments, it is assumed that profit management in periods of high emotions and confidence of investors, due to the separation of prices and the fundamental value of companies In moments of market optimism, it is more. Regarding the background of the research, it should be acknowledged that some of the most important researches conducted in this regard are:

Eugster and Wagner (2021) in a research titled Gaining Investor Confidence: The Role of Historical Earnings Management, examine whether earnings management, even if legal, hinders investor confidence in reported earnings. Or do investors view earnings management as a way for companies to communicate private information or simply as a neutral feature of financial reporting? The data of this study were obtained from the financial statement information of the China Center for Research in Securities Prices (CRSP) during the period of 1993 to 2014. They also used the multivariate linear regression method to analyze the data. Their results showed that refraining from earnings management in the past increases investors' reactions to future earnings surprises. Importantly, this effect occurs in industries that have recently lost investor confidence, and in the past managers had incentives and opportunities to manipulate earnings. In general, investors appear to partially interpret management's resistance to the temptation to misreport as a "representative test" of reliability.

Suto and Takehara (2021) in their study, Corporate Social Responsibility Intensity, Earnings Management Forecasting Accuracy, and Investor Trust: Evidence from Japan, examine how corporate social responsibility (CSR) intensity affects investment performance (as an indicator of trust). (Investor) directly affects, and how it affects investment performance indirectly through the moderating role of earnings management. The time period of this study is from 2007 to 2016, and the information is obtained from the CSR database of Toyo Keizai Incorporated, Japan. Using a multiple regression method, they find that investors benefit from companies with high social responsibility because they avoid unexpected stock fluctuations while paying for social responsibility by reducing returns. They also show that the intensity of social responsibility in the long term stabilizes the stock returns of companies with high social responsibility. Social responsibility activities based on stakeholder relationships contribute to trust at the company level. The participation of shareholders in order to build trust in investors is not only necessary for the sustainability of companies and long-term success, but

it is also a major determining factor in the proper functioning of capital markets with unstable public trust. Miranda et al. (2018) in a study titled Investors' Willingness and Earnings Management: Does Analyst Monitoring Matter? Assuming that managers have incentives to manage earnings in optimistic moments, we analyzed whether analyst monitoring affects the relationship between discretionary accruals and investor sentiment in the Brazilian capital market. The time period of the research is from 2009 to 2016 and the collected information includes all non-financial companies in Brazil. Data analysis was done through principal components (PCA) and multivariate regression. Their results indicated a decrease in earnings management after optimistic moments, which is different from initial expectations, and such behavior is caused by the presence of company analysts. Analysts influence accounting earnings and support best disclosure, thus preventing earnings management performance in optimistic moments. Thus, although previous studies show that earnings management practices increase in optimistic moments, market participants may, even in such moments, consider better earnings quality when firms are monitored by analysts.

Asnaashari et al. (2020) in a research entitled the relationship between profit management patterns and investors' perception, to investigate the relationship between profit management patterns and investors' perception among companies listed on the Tehran Stock Exchange during the period from 2005 to 2016 using the least-squares method. Estimated generalized squares. They calculated the investors' perception using the factor analysis of functional variables of the capital market and measured the profit management patterns using accruals and actual activities. Their results showed that the application of the management model through accrual profit has an inverse relationship with investors' perception of the capital market horizon. In other words, when investors' perception of the market is negative, they pay more attention to accruals in their decisions, and this encourages the manager to use profit management through accruals in negative perception conditions. This is while profit management through real activities has a direct relationship with investors' perception; therefore, in the

condition of positive perception, investors pay more attention to profit management through real activities.

BashiriManesh and Oradi (2019) in a research entitled emotional behavior of investors and management of accounting profit, investigated the relationship between emotional behavior of investors and management of accounting profit among 95 companies admitted to the Tehran Stock Exchange during the period of 2010 to 2014. For this purpose, investors' emotional behavior and accounting profit management were measured using the model proposed by Kasznik's model (1999), respectively. Their results showed that there is a positive and significant relationship between the variables of momentum effect and value from the point of view of the ratio of price to profit per share with accounting profit management. In other words, it can be said that investors' short-term attitudes affect the amount of discretionary accrual items manipulation. Also, the results showed that there is no significant relationship between the emotional behavior of investors and real profit management. Pourheidari et al. (2013) in a research entitled "Investigation of the effect of real profit management on the investment behavior of companies admitted to the Tehran Stock Exchange, the effect of real profit management on the investment behavior of companies among 63 companies admitted to the Tehran Stock Exchange, during They examined the period from 1999 to 2009. In order to measure the real profit management, they used three variables of abnormal cash flow from operational activities, abnormal discretionary costs, and abnormal production costs. Their results showed that there is a significant relationship between abnormal cash flows from operational activities and abnormal discretionary expenses with inefficient investment. This means that with more real profit management, the amount of inefficient investment of company's increases.

Regarding the innovation of the current article, we must acknowledge that no internal study has investigated the impact of historical low profit management on attracting investors' trust, this research examines market confidence and investors' reaction to unexpected profits with the moderating

role of historically low profit management in the Iranian capital market.

3. Hypotheses

- The first hypothesis: unexpected profit attracts the confidence of investors in the capital market.
- The second hypothesis: the management of historically low profits moderates investors' confidence in relation to unexpected profits.
- The third hypothesis: stock prices react to the announcement of companies' profits.
- Fourth hypothesis: Historically low profit management moderates the stock price reaction to corporate profit announcements.

4. Methodology

The current research is an applied research in terms of its purpose, which is a semi-experimental analytical research. It is also a type of correlational and post-event research. Since past information is used in this research, the research methodology is post-event type. Based on the classification of research according to how data is collected (research design), the current research is a descriptive research. In terms of the type of data, it is a quantitative research that investigates the relationship between variables, and in terms of the method of reasoning, it is considered an inductive research. The statistical population of this research is listed companies. The reason for choosing the aforementioned statistical community is that the Tehran Stock Exchange and Securities Organization has relatively comprehensive information about the state of companies and the trend of their financial and economic performance, and it can be said that it is the only source of information that can be used to access the financial information sources of companies and The research model was tested.

According to the subject of this research, the statistical population of the research includes listed companies that remain in the sample through

screening. In the exclusion criteria of our screening, according to the fact that the company is a member of the stock exchange in 2014 and the financial year ends at the end of the solar year, it is not other than brokerage, investment, monetary, banking and holding companies, while its information is available. Therefore, the number of 116 companies admitted to the Tehran Stock Exchange during the period of 2014 to 2019 were selected.

Research model and method of measuring variables

The models used in this research will be based on the study of Eugster & Wagner (2021).

As follows:

$$CAR_{i,t} = \beta_0 + \beta_1 CAR_{i,t-1} + \beta_2 LEM_{i,t-1} + \beta_3 UE_{i,t} + \beta_4 Size_{i,t} + \beta_5 Lev_{i,t} + \beta_6 ROA_{i,t} + \beta_7 Ind_{i,t} + \epsilon_{i,t} \quad (1)$$

$$CAR_{i,t} = \beta_0 + \beta_1 CAR_{i,t-1} + \beta_2 LEM_{i,t-1} + \beta_3 UE_{i,t} + \beta_4 LEM_{i,t-1} \times UE_{i,t} + \beta_5 Size_{i,t} + \beta_6 Lev_{i,t} + \beta_7 ROA_{i,t} + \beta_8 Ind_{i,t} + \epsilon_{i,t} \quad (2)$$

$$EI_{i,t} = \beta_0 + \beta LEM_{i,t-1} + \beta_2 Abs(UE)_{i,t} + \beta_3 Size_{i,t} + \beta_4 Lev_{i,t} + \beta_5 ROA_{i,t} + \beta_6 Ind_{i,t} + \epsilon_{i,t} \quad (3)$$

$$EI_{i,t} = \beta_0 + \beta_1 LEM_{i,t-1} + \beta_2 UE_{i,t} + \beta_3 LEM_{i,t-1} \times UE_{i,t} + \beta_4 Size_{i,t} + \beta_5 Lev_{i,t} + \beta_6 ROA_{i,t} + \beta_7 Ind_{i,t} + \epsilon_{i,t} \quad (4)$$

The research variables are as follows:

The dependent variable: Investor confidence (CAR): In this research, the index of investor confidence will be obtained by calculating the cumulative abnormal return of stocks during the period of -1 to +1 according to the date of the profit announcement (Daniel et al, 1999)

Usefulness of information (EI): Usefulness of information is calculated by comparing returns in the period of profit announcement to returns outside the period (Eugster and Wagner, 2021).

Independent variable: Low profit management (LEM): In order to calculate low profit management, optional accruals models are used to detect the level of accrual profit management and then the actual profit management is calculated. For this purpose, first the normal level of accruals is calculated and the remaining (actual value - predicted value) is classified as discretionary accruals.

After calculating optional accruals in the four stated methods, profit management is calculated through the average rating of each company in four methods. And finally, low profit management will be obtained through the difference of 1 minus the profit management score.

$$LEM_{i,t} = 1 - \sum_{i=1}^{4} \frac{EM\_SCORE_{i,t}}{4} \quad (5)$$

Unexpected profit (UE): which will be obtained by calculating the difference between the actual profit and the average expected profit divided by the stock price (Eugster and Wagner, 2021).

Control variable

-*Company size (Size):* equal to the natural logarithm of the value of total assets (Eugster and Wagner, 2021).

-*Financial leverage (Lev):* is equal to the ratio of the book value of liabilities to the total assets (Eugster and Wagner, 2021).

-*Return on assets (ROA):* It is equal to the ratio of profit after deducting interest and taxes to total assets (Eugster and Wagner, 2021).

-*Industry index (Ind):* It is calculated from the ratio of the company's sales to the sales revenue of the industry (Eugster and Wagner, 2021).

5. Findings

Descriptive Statistics

The results of the descriptive statistics of the research variables are presented in Table 1.

Table 1. The Results of descriptive statistics of research variables

Variable	Abnormal stock returns	Useful information	Low profit management	Unexpected profit	Financial Leverage	Company size	Asset return	Industry index
Average	0.06	-0.05	0.94	746.90	0.58	6.30	10.59	0.08
Mediocre	-0.09	-0.03	0.97	350.23	0.58	6.22	8.55	0.03
Max	6.51	0.53	0.99	12744.1	1.27	8.75	59.46	0.57
Min	-2.31	-0.93	-2.64	-5552.89	0.05	4.91	40.45	0.001
Standard deviation	0.89	0.14	0.16	1255.4	0.20	0.60	12.93	0.12
Kurtosis	2.61	-1.75	-16.10	2.81	0.04	0.98	0.49	2.51
Skewness	16.63	12.34	325.36	19.86	3.15	4.49	4.43	8.50

As can be seen in Table 1, the average abnormal stock return is 0.06. The lowest value of the abnormal stock return for the studied sample is -2.31 and the highest value is 6.51. Also, the average of low profit management is equal to 0.94. Also, the minimum and maximum of low profit management are equal to -2.64 and 0.99, respectively. Regarding the usefulness of information, the average, lowest and highest values are equal to -0.05, -0.93 and 0.53, respectively.

5.1. Stationarity test of variables

In order to check the reliability, the Phillips-Prone test was used. The results of this test are shown in the following tables.

Table 2. The Results of phillips-perron test for stationarity

Variable		PP - Fisher Chi-square	p-value
Abnormal stock returns	CAR	820.84	0.00
Low profit management	LEM	511.98	0.00
Unexpected profit	UE	1353.46	0.00
Financial Leverage	Lev	357.90	0.00
Company size	Size	301.41	0.00
Asset return	ROA	358.12	0.00

According to the results of the test, because the P value for all variables is less than 0.05, as a result, all research variables have been at a stable level during the study period of the research. As a result, the test results show that the mean and variance of the variables over time and the covariance of the variables were constant between different years. As a result, using these variables in the model does not cause false regression.

5.2. The results of the F-Limer and Hausman tests

Table 3. The results of the F-Limer and Hausman tests

Hypothesis	Limer's F test test	Possibility	P-value	Result	Hausman tests	Possibility	P-value	Result
First hypothesis	3.52	0.01	P<0.05	Panel data	32.39	0.00	P<0.05	Fixed effects
Second hypothesis	3.59	0.01	P<0.05	Panel data	33.16	0.00	P<0.05	Fixed effects
Third hypothesis	1.77	0.00	P<0.05	Panel data	28.44	0.00	P<0.05	Fixed effects
Fourth hypothesis	1.78	0.00	P<0.05	Panel data	20.08	0.00	P<0.05	Fixed effects

In all four investigated models related to the research hypotheses, considering that the p-value obtained from F Limer test is smaller than 0.05, as a result, the panel data method is used. Also, considering that the p-value of the Hausman test statistic is less than 0.05, as a result, all four models will be satisfied using fixed effects.

Auto correlation

Table 4. The results of the Durbin-Watson's test

Hypothesis	statistic value	Result
First hypothesis	1.95	Lack of autocorrelation
Second hypothesis	1.81	Lack of autocorrelation
Third hypothesis	1.89	Lack of autocorrelation
Fourth hypothesis	1.89	Lack of autocorrelation

Durbin-Watson's test was used to detect autocorrelation. The null hypothesis in this test is the absence of autocorrelation between error sentences. Due to the fact that the Durbin Watson test statistic in all four models is in the range of 1.5 to 2.5, as a result, the lack of correlation in the models used in the research is confirmed.

Checking the normality of the error sentence distribution

Table 5. Jarque-Bera Test results

Hypothesis	Description	statistic value	Probability	P-value	Result
First hypothesis	F-statistic	19.91	0.00	P<0.05	Non-normality of error distribution
Second hypothesis	F-statistic	600.61	0.00	P<0.05	Non-normality of error distribution
Third hypothesis	F-statistic	17.61	0.00	P<0.05	Non-normality of error distribution
Fourth hypothesis	F-statistic	17.38	0.00	P<0.05	Non-normality of error distribution

In this research, the Jarque-Bera test was used to check the normality of the error sentence. The zero assumption of this test is the existence of a normal distribution of residuals. The results show that in all four models, the residuals do not have a normal distribution. But when the sample size is large enough and other classical assumptions are also maintained, the deviation from the assumption of normality is usually insignificant and its consequences are insignificant. Therefore, not confirming the normality of the error distribution in this research cannot affect the model estimation results.

Check that the average error is zero

Table 6.The results of the average error test

Hypothesis	Description	statistic value	Probability	P-value	Result
First hypothesis	F-statistic	0.00	1.00	P<0.05	The average error is zero
Second hypothesis	F-statistic	0.00	1.00	P<0.05	The average error is zero
Third hypothesis	F-statistic	0.00	1.00	P<0.05	The average error is zero
Fourth hypothesis	F-statistic	0.00	1.00	P<0.05	The average error is zero

According to the test statistic and the corresponding probability for all four models, the null hypothesis that the average residuals are zero in the used model is not rejected.

5.3. Examination of heterogeneity of variance

Table 7. White's homogeneity variance test results

Hypothesis	Description	Statistic value	Probability	P-value	Result	Regression method
First hypothesis	F-statistic	2.45	0.00	P<0.05	Existence of variance homogeneity	Multivariate linear regression
Second hypothesis	F-statistic	2.68	0.00	P<0.05	Existence of variance homogeneity	Multivariate linear regression
Third hypothesis	F-statistic	1.93	0.00	P<0.05	Existence of variance homogeneity	Multivariate linear regression
Fourth hypothesis	F-statistic	1.33	0.01	P<0.05	Existence of variance homogeneity	Multivariate linear regression

Considering that White's test statistic is significant in all four models at the confidence level of 5%, as a result, the existence of homogeneous variance in the models used in the research is confirmed.

5.4. Analysis of hypotheses

The first hypothesis of the research: Unexpected profit attracts the confidence of investors in the capital market.

Table 8. Results of data analysis to test the first research hypothesis

Dependent variable - attracting investors' trust				
Variable	**Coefficient**	**Standard deviation**	**T-statistic**	**P-value**
CAR(-1)	0.002	0.02	0.07	0.947
LEM(-1)	0.14	0.08	1.82	0.06
UE	0.0003	0.18	1.34	0.18
SIZE	-0.47	0.13	-3.72	0.00
LEV	0.81	0.21	3.85	0.00
ROA	0.02	0.003	6.67	0.00
Ind	0.70	0.72	0.98	0.33
C	2.10	0.79	2.66	0.01
Durbin Watson (DW) statistic		1.95	F-statistic	2.21
Adjusted R-squared		0.18	Prob (F-statistic)	0.00
$CARi,t = \beta 0 + \beta 1CARi,t\text{-}1 + \beta 2LEMi,t-1 + \beta 3UEi,t + \beta 4Sizei,t + \beta 5Levi,t + \beta 6ROAi,t + \beta 7Indi,,t + \epsilon i,t$				

According to the results of the regression model test as described in the above table, it can be seen that the P-value of the F-statistic, which indicates the significance of the entire regression, is equal to 0.00 and indicates that the model is at the 95% confidence level. It is meaningful. The adjusted coefficient of determination is equal to 0.18 and indicates that approximately 18% of the changes in the dependent variable can be explained by the independent variables of the model; Also, Durbin Watson's statistic is equal

to 1.95, which is between 1.5 and 2.5 and indicates the lack of autocorrelation between the variables.

As seen in the above table, the variable coefficient of unexpected profit (UE) is equal to 0.0003. According to the t-statistics and P-value of this variable, the results indicate the non-significance of this variable and its influence coefficient at the confidence level of 95%. These findings show that unexpected profit does not affect the reaction of investors and gaining their trust. The second hypothesis of the research: past low profit management moderates investors' confidence in unexpected profits.

Table 9. Results of data analysis to test the second research hypothesis

Dependent variable - attracting investors' trust				
Variable	**Coefficient**	**Standard deviation**	**T-statistic**	**P-value**
CAR(-1)	0.02	0.03	0.57	0.57
LEM(-1)	-0.02	0.61	-0.03	0.97
UE	-0.001	0.0003	-0.30	0.76
LEM(-1) * UE	0.0002	0.0003	0.50	0.62
SIZE	-0.42	0.17	-2.44	0.01
LEV	0.52	0.31	1.68	0.09
ROA	0.02	0.004	4.19	0.00
Ind	0.29	0.93	0.31	0.76
C	2.09	1.23	1.70	0.09
Durbin Watson (DW) statistic		1.81	F-statistic	1.76
Adjusted R-squared		0.12	Prob (F-statistic)	0.00
$CARi,t = \beta 0 + \beta 1CARi,t\text{-}1 + \beta 2LEMi,t-1 + \beta 3UEi,t + \beta 4LEMi,t\text{-}1 \times UEi,t + \beta 5Sizei,t + \beta 6Levi,t + \beta 7ROAi,t + \beta 8Indi,t + \epsilon i,t$				

According to the results of the regression model test to analyze the second hypothesis of the research as described in the above table, it can be seen that the P-value of the F-statistic of the model, which indicates the

significance of the entire regression, is equal to 0.00 and it indicates that that the model is significant at the confidence level of 95%. The adjusted coefficient of determination is equal to 0.11 and indicates that approximately 11% of the changes in the dependent variable can be explained by the independent variables of the model; Also, Durbin Watson's statistic is equal to 1.81, which is between 1.5 and 2.5 and indicates the lack of autocorrelation between the variables. As seen in the above table, the variable coefficient of unexpected profit (UE) is equal to -0.001. According to the t-statistics and P-value of this variable, the results indicate the non-significance of this variable and its influence coefficient at the confidence level of 95%. These findings show that unexpected profit does not have a significant effect on the reaction of investors and gaining their trust. Also, the results show that the coefficient (LEM (-1) * UE) is equal to 0.002 and according to the t-statistic and P-value of this coefficient, the past low profit management does not moderate investors' confidence in unexpected profits. Therefore, it can be stated that past low profit management as a determining variable causes the effect of unexpected profit and past low profit management to be insignificant. In other words, the moderating role of past low profit management in the relationship between attracting investors' trust and unexpected profit is not significant at the 95% confidence level.

The third hypothesis of the research: stock prices react to the announcement of companies' profits.

Table 10. Data analysis results to test the third research hypothesis

Dependent variable - stock price				
Variable	**Coefficient**	**Standard deviation**	**T-statistic**	**P-value**
LEM(-1)	0.12	0.05	2.28	0.02
Abs(UE)	0.0001	0.00	2.98	0.00
SIZE	-0.005	0.02	-0.29	0.77
LEV	0.002	0.03	0.07	0.94

Dependent variable - stock price				
Variable	**Coefficient**	**Standard deviation**	**T-statistic**	**P-value**
ROA	-0.001	0.00	-3.89	0.00
Ind	0.20	0.16	1.27	0.20
C	-0.15	0.12	-1.25	0.21
Durbin Watson (DW) statistic		1.89	F-statistic	2.84
Adjusted R-squared		0.24	Prob (F-statistic)	0.00
$EIi,t = \beta 0 + \beta LEMi,t-1 + \beta 2Abs(UE)i,t + \beta 3Sizei,t + \beta 4Levi,t + \beta 5ROAi,t + \beta 6Indi,t + \epsilon i,t$				

According to the results of the regression model test to analyze the second hypothesis of the research as described in the above table, it can be seen that the P-value of the F-statistic of the model, which indicates the significance of the entire regression, is equal to 0.00 and it indicates that that the model is significant at the confidence level of 95%. The adjusted coefficient of determination is equal to 0.24 and indicates that approximately 24% of the changes in the dependent variable can be explained by the independent variables of the model; Also, Durbin Watson's statistic is equal to 1.89, which is between 1.5 and 2.5 and indicates the lack of autocorrelation between the variables. As seen in the above table, the variable coefficient of the absolute value of unexpected profit (Abs (UE)) is equal to 0.0001. According to the t-statistic and P-value of this variable, the results indicate the significance of this variable and its influence coefficient at the confidence level of 95%. These findings show that stock prices have a positive reaction to the announcement of companies' profits, which is statistically significant. Also, the results show that the variable coefficient of past low profit management (LEM (-1)) is equal to 0.12 and according to the t-statistic and P-value of this coefficient, past low profit management has a positive and significant effect on the stock price.

The fourth hypothesis of the research: past low profit management moderates the reaction of stock prices to the announcement of corporate profits.

Table 11. Data analysis results to test the fourth research hypothesis

Dependent variable - stock price				
Variable	**Coefficient**	**Standard deviation**	**T-statistic**	**P-value**
LEM(-1)	0.06	0.06	1.00	0.32
Abs(UE)	-0.001	0.0003	-2.10	0.04
LEM(-1) * Abs(UE)	0.001	0.0004	2.44	0.01
SIZE	0.001	0.02	0.03	0.97
LEV	0.01	0.03	0.55	0.58
ROA	-0.001	0.00	-4.07	0.00
Ind	0.19	0.16	1.21	0.23
C	-0.12	0.12	-1.05	0.29
Durbin Watson (DW) statistic		1.89	F-statistic	2.93
Adjusted R-squared		0.25	Prob (F-statistic)	0.00

$$EIi,t = \beta 0 + \beta 1LEMi,t-1 + \beta 2UEi,t + \beta 3LEMi,t\text{-}1 \times UEi,t + \beta 4Sizei,t + \beta 5Levi,t + \beta 6ROAi,t + \beta 7Indi,t + \epsilon i,t$$

According to the results of the regression model test to analyze the second hypothesis of the research as described in the above table, it can be seen that the P-value of the F-statistic of the model, which indicates the significance of the entire regression, is equal to 0.00 and it indicates that that the model is significant at the confidence level of 95%. The adjusted coefficient of determination is equal to 0.25 and indicates that approximately 25% of the changes in the dependent variable can be explained by the independent variables of the model; Also, Durbin Watson's statistic is equal to 1.89, which is between 1.5 and 2.5 and indicates the lack of autocorrelation between the variables. As can be seen in the above table, the variable coefficient of absolute value of unexpected profit ((UE) Abs) is equal to -0.001. According to the t-statistic and P-value of this variable, the results indicate the significance of this variable and its influence coefficient at the confidence level of 95%. These findings show that the absolute value of unexpected profit has a significant reaction to the company's profit

announcement. Also, the results show that the coefficient ((LEM (-1) * AbsUE) is equal to 0.001 and according to the t-statistic and P-value of this coefficient, the past low profit management moderates the stock price reaction to the profit announcement.

6. Conclusion

Financial statements are the most important sources of information, especially for investors. In the meantime, the profit and loss statement, which provides useful information regarding the profitability of companies, is more important to investors. Past research shows that stocks of companies whose stock growth pattern has a clear trend attract more investors. Therefore, the motivation of managers to maintain the profit threshold and take measures to achieve the desired profit to attract investors increases. Therefore, there has always been a concern that profit, as one of the most important information indicators of companies, is managed and manipulated by managers with specific goals. Past research has shown the dire consequences of illegal earnings management behavior for both firms and managers. So that some researchers have expressed fundamental concerns about the performance of profit management and refer to it as a wrong practice to some extent. Others, however, see earnings management as a natural business choice and emphasize the prevalence of "the good kind of earnings management." Accordingly, this study examines whether investors react to unexpected earnings. Also, this study examines how the management of past profits affects the reaction and confidence of investors towards unexpected profits. In addition, this study looked at the effect of profit announcement on stock price reaction and changes and the moderating role of past earnings management in this regard. Overall, this study examines whether past earnings management is recognized as a good practice or a bad practice. For this purpose, in this study, by using the information and data of the companies admitted to the Tehran Stock Exchange during the period from 2015 to 2020 and through the multivariable linear regression method

based on panel data and fixed effects, the hypotheses and the results of this research show that the unexpected profit did not have a significant impact on investors' confidence. Also, the results showed that the moderating role of the company's past low (low) profit management does not have a significant effect on the relationship between unexpected profit and attracting investors' trust. These results can be due to the uncertain and volatile conditions of the country's economy and financial markets. Because in this situation, investors' confidence in the financial markets has decreased in general. In addition, the results showed that the stock price reacts to the announcement of the profit of the companies, so that when the profit is announced, the stock price also increases. In addition, the results showed that the stock price reacts less and changes less when compared to the announcement of the profit of companies with a history of less (lower) profit management. In other words, profit management of companies in the past causes less reaction and changes in stock prices compared to the company's profit announcement. This means that the moderating role of low (low) profit management in the past is confirmed in the relationship between the company's profit announcement and stock price changes.

Overall, this research does not consider the earnings management market as "good" or "bad" per se, but puts this managerial decision in a framework. The results of examining the hypotheses show that when the company announces the profit, the prices show a positive reaction, and in other words, when the profit is announced, the prices jump. At this time, if the company has low (low) profit management in the previous periods, this change and price jump will be reduced, and in other words, the prices will be less reactive to the announcement of profit.

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Conflicts of interest

The authors declare no conflict of interest

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