Accounting and Auditing with Application

www.aaa.reapress.com

Acc. Aud. Appl. Vol. 1, No. 4 (2024) 174–186.

Paper Type: Original Article

The Relationship Between CEO Characteristics, Accounting Opacity, and Synchronicity Stock Prices in the Iranian Capital Market

Sara Partouvi*

School of Management and Marketing, Taylors University: Malaysia; sarapartovi123@yahoo.com.

Citation:

Received: 23 February 2024 *Revised: 20 April 2024* *Accepted: 17 May 2024*	Partouvi, S. (2024). The relationship between CEO characteristics, accounting opacity, and synchronicity stock prices in the iranian capital market. *Accounting and auditing with application, 1*(4), 174-186.

Abstract

The objective was to explain the relationship between accounting uncertainties and stock price coincidence with the moderating role of CEO characteristics in companies listed on the Tehran Stock Exchange. This research was applied in terms of purpose and descriptive-correlational in nature and method. The study's statistical population was the companies listed on the stock exchange during the nine years from 2012 to 2020, where a total of 113 companies and 1017 observations were studied. The results showed that earnings management and CEO expertise in high and low growth levels do not significantly affect stock price concurrency. Tax aggressiveness and CEO tenure do not considerably affect stock price synchronicity at low growth levels. Still, they significantly affect stock price synchronicity at high growth levels. CEO expertise has no moderating role in the relationship between earnings management and stock price synchronicity at high and low growth levels. Still, CEO expertise has a moderating role on the relationship between tax aggressiveness and stock price synchronicity. CEO tenure has no moderating role on the relationship between earnings management and stock price synchronicity. CEO tenure has no moderating role on the relationship between tax aggressiveness and stock price synchronicity at low growth levels, but it does at high growth levels.

Keywords: Accounting opacity, Stock price concurrency, CEO characteristics.

1 | Introduction

Carl Jung, a Swiss psychologist, first proposed the idea of synchronicity in psychology in the 1920s. The term is used when two or more events occur together to form a meaningful event. Stock price synchronicity is considered a relatively new field in financial and economic research. It is closely related to economic development and financial market stability; however, its main concept in financial literature is not new.

Corresponding Author: sarapartovi123@yahoo.com

10.22105/aaa.v1i4.48

At the same time, he defines share price as follows: it is a degree of market and industry information reflected in the firm's stock price. Stock price synchronization is a tool to measure stock price movement; it also reflects the degree of firm-specific information at the market and industry level [1]. The higher the quality and transparency of company-specific information, the lower the price. Due to the importance that investors attach to their stock returns, sudden changes in stock prices are among the topics widely studied by researchers who study stock price behavior [2].

According to efficient market theory, stock prices incorporate all public and available information, and stock price changes follow the flow of information to the stock market. This includes firm-specific and industry/market-level information [3]. Company-specific information used in stock valuation, including information such as annual and quarterly reports of companies to the stock exchange, reports of any significant events affecting the stock price, and confidential and private information available to major shareholders, managers, and supervisors.

Information at the industry/market level also includes information about the company's performance and the performance of the industry/market [4]. The stock price simultaneity criterion determines the amount of firm-specific information reflected in the stock price and return [5]. Given that the stock price is determined by combining a wide range of information (e.g., earnings, macroeconomic news, financial analysts' forecasts, and other financial information), simultaneous price analysis allows the researcher to study a wide range of information effects on stock prices. At the same time, price has long been studied in financial research and, more recently, in accounting. Early studies examine whether these unexplained return fluctuations (while underpricing) are due to private information or pricing errors; for example [1].

In addition, many recent studies use price concurrency to examine the effect of the information environment on the firm-specific information reflected in the price; that is, lower price concurrency means more firm-specific information [6]. Decision-making is considered one of the managerial duties and its core, and accounting information can support a decision in an organisation [7]. Financial reporting is the main source of information for shareholders. Moreover, due to the asymmetry of information in the company, investors pay a lot of attention to the information that helps them to make investment decisions [8].

Earnings management and tax aggressiveness are two important criteria for determining a lack of accounting transparency. Because the manager believes that earnings management will improve investors' valuation of his companies, the manager can engage in earnings management and mislead investors when the share price changes. Therefore, the manager can use different earnings management tools.

Influence the perception of earnings. Depending on the manager's incentives resulting from earnings management activities, earnings management can increase or decrease earnings awareness. Managers are encouraged to use bold earnings management techniques to maintain the company's overvalued share price. Therefore, overvalued shares (bold reporting) naturally reduce earnings consciousness because it signifies managerial opportunism. Since managers in companies are responsible for financial and tax reporting, profit management also affects the income companies earn and report.

Therefore, the role of CEO characteristics plays a fundamental role in reducing or increasing accounting uncertainty in the skill of earnings management and tax reporting. Specifically, older CEOs are less likely to engage in aggressive earnings management, and, in addition, older CEOs make more conservative decisions and engage in less opportunistic behavior, which may moderate the relationship between these accounting uncertainties and stock price concurrency [8].

In addition, to confirm the company's obligations to society of companies, you must specify your taxes, and managers also fulfill their obligations by preparing tax statements and, consequently, by paying tax debts on time. do [8]. Tax is one of the most important factors in many corporate financial decisions. Recent evidence shows that minimizing tax costs through adopting bold tax practices is one of the common features of the corporate landscape in most countries.

Courageous tax practices have significant costs and benefits for managers, shareholders, and society. What is clear is that making decisions and plans to minimize tax is risky. There is no clear and consistent definition of tax risk. However, Arlinghaus [9] describes tax risk as follows: the possibility of a difference between the tax returns resulting from tax plans and what was expected due to reasons such as changes in laws, business conditions, and judicial processes, increased sensitivity of auditors to the issue of taxation and uncertainty regarding the correctness of the interpretation of laws. It is, therefore, naive to assume that, despite this risk, adopting bold tax practices will always lead to maximizing shareholder value. However, such activities also decrease the transparency and quality of the company's reporting, as they require complex transactions and legal loopholes [10].

Considering that investors invest in an economic unit if, firstly, they have sufficient information about it and, secondly, they trust this information. On the other hand, since financial statements provide valuable information to external groups, heavy reliance on accounting figures, especially on profits, provides strong incentives for managers to act in their own interest. benefit from manipulation. This leads to users receiving incorrect information and making incorrect decisions based on it [11]. Therefore, in this research, we seek to answer whether there is a relationship between accounting uncertainty and stock price coincidence with the moderating role of CEO characteristics in companies listed on Tehran Stock Exchange.

2 | Theoretical Literature and Extension of Study Hypotheses

2.1 | Accounting Opacity

Opacity also means the perceived lack of information needed to understand a situation and make a choice. In a situation where there is a need to choose or evaluate, the perceived presence of opacity is dangerous. It creates a perceptual challenge so that the desired information is either absent or far away. As a result, opacity can be a barrier that destroys the power of choice and prediction. Non-tolerance of opacity is the inconsistency of information, while tolerance of opacity is the degree of acceptance or attraction to such lack of information. In the context of the relationship between opacity and opacity tolerance with accounting, it can also be noted that accounting is intrinsically related to arbitration, and arbitration itself can be defined as the power to make decisions in dealing with opacity [12].

Work opacity refers to the level of mastery and control a person has over their job and work, as well as their interest in the job. Opacity is the difference between the information needed to perform a task and the available information [13]. Opacity is the difference between the information required to perform a task and the available information. Opacity refers to the organization's structure, strategy, and process; in short, opacity is defined as a level of work that is difficult and complex to perform and understand [7].

2.2 | Share Price Synchronization

As the share price rises, so does the value of the company and the welfare (wealth) of the whole community. The price of a security is a reasonable estimate of its intrinsic value and a good indication of the allocation of resources. If a company does the right thing, its share price will naturally rise, and it will be able to increase its capital if needed. Such companies have better access to the capital market, and financial resources flow easily. On the other hand, if the shares are sold at the current price, the shareholders will not suffer any losses, so the share price becomes a good measure of resource allocation.

Investors' goal in investing in companies is to earn a reasonable return. Stock returns consist of two parts: stock price changes and dividends received; therefore, stock price (its changes) is one of the criteria for making decisions about buying and selling stocks [14]. Share price behaviour depends on two factors: market movements and company-specific information.

On the other hand, market movement is influenced by company-specific information, which is related to the company's factors. More investor confidence in the company's earnings depends on more company-specific information. More investor confidence in the company's earnings depends more on company-specific details.

Suppose the relationship between the company's return and the simultaneous market return of the price is negligible. In that case, it indicates more company-specific information, so it can be said that the low concurrency of the company's stock returns is expressive. This is because their prices are less dependent on market movements. After all, there is more company-specific information on which market participants rely. The simultaneity of stock returns indicates that price simultaneity equals the ratio of systematic to unsystematic risk. Stock price simultaneity is a tool to measure stock price movements and reflects the degree of firm-specific information at the market and country levels [14].

Stock returns (the domain in which industry and market returns are the difference in stock returns at the company level). Indeed, price synchronicity is defined as a measure of the relative amount of firm-specific information reflected in the price. They also state that the explanatory power of industry and market indicators indicates the relative amount of company-, industry- and market-specific information. Roll argues that the range in which stock prices change depends on the amount of specific information at the firm and market level and that broad market and industry effects explain only a tiny portion of stock price changes [15].

2.3 | CEO Characteristics

In today's world, management plays a critical role in increasing the efficiency and productivity of organizations. Among the four essential factors of success in organizations, including labor, capital, raw materials, and management, the role of management has become more critical than ever before. The personal characteristics of the CEO influence the financial reporting of the company. According to the above theory, the individual characteristics of managers play an essential role in their strategic decisions, and important decisions in the company are based on the inherent characteristics of decision-makers, including the CEO. These characteristics (age, education, and experience) show their tendencies and abilities.

The power of the CEO has attracted the attention of many researchers in the fields of economics, finance, management, and psychology. The position of the CEO is considered as a source of power. It is generally regarded as the principal architect of the company's innovation mechanisms and the main factor in creating shareholder value. At the same time, if the interests of the CEO are not aligned with the interests of the shareholders, then the influence and power of the CEO becomes problematic [16].

3 | Methodology

3.1 | Statistical Population and Sample Size

The statistical population of the research is the collection of companies listed to the Tehran Stock Exchange market in the period of 9 years from 2012 to 2020. Sampling was done by systematic exclusion. In this way, at each stage, among all the existing companies, the companies that do not meet the following conditions are eliminated, and finally, all the remaining companies are selected for the test *Table 1*, and the minimum limits for selecting the samples are as follows:

I. They all have the end of fiscal year (29/12/XX).

II. The enterprises did not change their accounting periods during the period under review (2012-2020).

III. The companies did not change their type of activity during the investigated period (2012-2020).

IV. The companies should not belong to investment and brokerage companies, banks, insurance companies, etc.

V. Their data are available.

Table 1. Available statistical population.

All listed companies by the end of 2020	568
Inactive companies	(79)
Non-manufacturing companies	(110)
Admission of companies to the stock exchange after 2012	(48)
Financial year other than 12/29 and change of financial year	(53)
Break in trading activity of more than six months	(54)
Lacking access to complete information	(111)
Sample	113

Therefore, the 113 active companies in the Tehran Stock Exchange with the above conditions formed the statistical population of the research, and the same number was studied as a sample.

3.2 | Hypotheses to Research

The research hypotheses are:

Main hypotheses

I. Accounting opacities significantly affect the simultaneity of stock prices.

II. CEO characteristics play a moderating role in the relationship between accounting opacities and stock price concurrency.

Sub-hypotheses

H1: Earnings management has a significant effect on stock price concurrency.

H2: CEO expertise has a significant effect on stock price concurrency.

H3: CEO tenure has a significant effect on stock price concurrency.

H4: CEO expertise moderates the relationship between earnings management and stock price concurrency.

H5: CEO expertise plays a moderating role on the relationship between tax aggressiveness and stock price concurrency.

3.3 | Research Model and Variables

Following the research conducted by Nifar and Ajili [8], the regression models are as follows:

$$\mathrm{SYNCHO_{it}} = \beta_0 + \beta_1 \mathrm{EARMAN_{it}} + \beta_2 \mathrm{TAXAGRE_{it}} + \beta_3 \mathrm{TENURE_{it}} + \beta_4 \mathrm{EXP_{it}} + \beta_5 \mathrm{BIG_{it}} + \beta_6 \mathrm{SIZE_{it}}| + \beta_7 \mathrm{MTB_{it}} + \beta_8 \mathrm{LEV_{it}} + \beta_9 \mathrm{ROA_{it}} + \varepsilon_{it} \quad (1)$$

$$\mathrm{SYNCHO_{it}} = \beta_0 + \beta_1 \mathrm{EARMAN_{it}} + \beta_2 \mathrm{TAXAGRE_{it}} + \beta_3 \mathrm{TENURE_{it}} + \beta_4 \mathrm{EXP_{it}} + \beta_5 \mathrm{EARMAN_{it}} * \mathrm{EXP_{it}} + \beta_6 \mathrm{TAXAGRE_{it}} * \mathrm{EXP_{it}} + \beta_7 \mathrm{BIG_{it}} + \beta_8 \mathrm{SIZE_{it}} + \beta_9 \mathrm{MTB_{it}} + \beta_{10} \mathrm{LEV_{it}} + \beta_{11} \mathrm{ROA_{it}} + \varepsilon_{it} \quad (2)$$

$$\mathrm{SYNCHO_{it}} = \beta_0 + \beta_1 \mathrm{EARMAN_{it}} + \beta_2 \mathrm{TAXAGRE_{it}} + \beta_3 \mathrm{TENURE_{it}} + \beta_4 \mathrm{EXP_{it}} + \beta_5 \mathrm{EARMAN_{it}} * \mathrm{TENURE} + \beta_6 \mathrm{TAXAGRE_{it}} * \mathrm{TENURE} + \beta_7 \mathrm{BIG_{it}} + \beta_8 \mathrm{SIZE_{it}} + \beta_9 \mathrm{MTB_{it}} + \beta_{10} \mathrm{LEV_{it}} + \beta_{11} \mathrm{ROA_{it}} + \varepsilon_{it} \quad (3)$$

3.3.1 | Dependent variable

SYNCHO: Stock price synchronicity: Stock price synchronicity is the area in which market and industry returns reflect the difference in stock returns at the firm level, or in other words, the stock price has incorporated a large proportion of market information and vice versa.

It is measured using the Petroski and Russelton criterion as described in *Model 4*.

$$\text{Synch}_{it} = \log\left(\frac{R_{it}^2}{1 - R_{it}^2}\right). \quad (4)$$

In this respect:

Synch_{it}: The measure of simultaneity is the share price of company i in year t.

R_{it}^2: Correlation of company I's stock returns with industry and market returns in year t, equal to the coefficient of determination of the time series regression model described in *Model 5*:

$$R_{it} = \alpha_0 + \beta_1 RM_{it} + \beta_1 RI_{it-1} + \beta_1 RI_{it} + \varepsilon_{it} \quad (5)$$

R_{it}: The company's stock returns per month.

RM_{it}: Market return per month.

RI_{it}: Company-related sector returns per month.

ε_{it}: The residual return of the company's shares [5].

3.3.2 | Independent variables

Referring to the research of Nifar and Ajili [8], used two criteria of earnings management and tax aggressiveness as accounting opacities:

Earnings Management (EAR-MAN)

$$\frac{TA_{i,t}}{A_{i,t-1}} = a_0\left(\frac{1}{A_{i,t-1}}\right) + a_1\left(\frac{\Delta REV_{it} - \Delta REC_{it}}{AT_{it-1}}\right) + a_2\left(\frac{PPE_{it}}{AT_{it-1}}\right) + a_3(ROA_{it-1}) + \varepsilon_{it} \quad (6)$$

in which:

$TA_{i.t}$: Total provisions of company i in year t.

$\Delta REV_{i,t}$: Change in turnover of company i between year t and t-1.

$\Delta REC_{i,t}$: Change in corporate payments.

PPE_{it}: Gross tangible assets of company i in year t.

$A_{i,t-1}$: Total book value of company i's assets in year t-1.

Return on Assets (ROA): The profit ratio to total assets.

ε_{it}: Uncertain effects, random effects.

This research uses the absolute value of ε_{it} as earnings management [17].

TAXARRE: Tax aggressiveness is calculated using the effective tax rate. In this research, following Chen et al. [18], the effective tax rate is used, which is the company's total tax expense in the current year divided by the profit before tax deduction.

3.3.3 | Modifier variables

TENURE: The tenure of the CEO, the number of years the person has been the company's CEO [19].

EXP: Expertise of the CEO: if the company's CEO has at least a bachelor's degree in accounting, management, or economics, the number is one; otherwise, it is zero.

3.3.4 | Control variables

BIG: The size of the audit firm. If the audit organization includes the audit of the company, the number is one; otherwise, it is zero.

SIZE: Company size, natural logarithm of total assets.

MTB: Ratio of market value to book value of equity.

LEV: Financial leverage, the ratio of total debt to total assets.

ROA: Return on assets, the ratio of profit after tax to total assets.

4 | Findings of the Research

4.1 | Descriptive Statistics

This section discusses descriptive statistics indices, which include central indices (maximum, minimum, mean) and dispersion indices, including variance and standard deviation and skewness and stretching indices. The mean is the most important and widely used central indicator.

It is correct at the data's equilibrium point and center of gravity. Variables of suitable quality do not differ significantly between their mean and median.

Table 1. Statistical index of variables.

	SYNCHO	Ear-Man	TAXARRE	TENURE	SIZE	MTB	LEV	ROA
Mean	-1.41	0.076	0.10	2.57	14.46	0.249	0.622	0.117
Median	-1.27	0.06	0.10	2	14.36	0.205	0.602	0.102
Max	0.282	0.443	0.91	9	20.3	3.67	3.97	0.69
Min	-5.96	0.00001	-0.41	1	10.49	-6.25	0.04	-0.60
SD.	0.919	0.067	0.10	1.75	1.54	0.57	0.36	0.161

Frequency of qualitative variables shows in *Table 2*.

Table 2. Qualitative variables.

Variable			Abundance	Percent Abundance
Audit Firm size	BIG	(0)	807	79.35
		(1)	210	20.65
CEO expertise	EXP	(0)	521	51.23
		(1)	496	48.77

The average is the most important and most used central indicator. The average value lies precisely at the data's equilibrium point and centre of gravity. Variables of suitable quality do not differ significantly between their mean and median.

4.2 | Results

A few statistical problems end at the stage of descriptive statistics. Still, most statistical problems involve making inferences about the characteristics of a population using the information available in a sample.

Estimation of the first model at low levels of growth

Table 3. Estimation of the first model.

Variables	Coeff.	t-Stats	Sig.
C	-3.83	-7.709	0.0000
EAR-MAN	-0.164	-0.284	0.7763
TAXGRE	0.033	0.146	0.8833
TURN	-0.003	-0.096	0.9229
EXPERT	-0.081	-0.88.	0.3788
BIG	-0.012	-0.124	0.9007
SIZE	0.157	4.72	0.0000
LEV	0.529	3.808	0.0002
ROA	-0.473	-1.43	0.151
F	5.467	R-squared	0.608
Durbin-Watson	1.57	Adjusted R-squared	0.497

Regarding the first sub-hypothesis of the research, according to *Table 3*, the significance level between earnings management and stock price concurrency is equal to 0.77, which is higher than the significance level considered in the current research (5%), as well as the statistical absolute value. T, which is equal to 0.28, is lower than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that earnings management does not have a significant effect on stock price concurrency is confirmed, and the leading hypothesis is not confirmed.

Regarding the second sub-hypothesis of the research, according to *Table 3*, the significance level between CEO expertise and stock price synchronicity is equal to 0.37, which is higher than the significance level considered in the current research (5%), as well as the absolute value. The t-statistic, which is equal to 0.88, is less than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that CEO expertise does not have a significant effect on stock price synchronicity is confirmed, and the main hypothesis is not confirmed.

Regarding the third sub-hypothesis of the research, according to *Table 3*, the significance level between CEO tenure and share price simultaneity is equal to 0.92, which is also higher than the significance level considered in the current research (5%). The absolute value of the t-statistic, which is equal to 0.09, is less than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that CEO tenure has no significant effect on stock price simultaneity is confirmed, and the leading hypothesis is not confirmed.

Estimation of the second model at low levels of growth

Table 4. Estimation of the second model.

Variables	Coeff.	t-Stats	Sig.
C	-3.77	-7.54	0.0000
EAR-MAN	0.11	0.261	0.7938
TAXGRE	-0.749	-3.55	0.0004
TURN	-0.003	-0.107	0.9144
EXPERT	-0.167	-1.61	0.108
EAR-MAN*EXPERT	-0.411	-0.76	0.4439
TAXGRE*EXPERT	1.058	4.117	0.0000
BIG	0.013	0.149	0.8813
SIZE	0.156	0.617	0.0000
LEV	0.541	3.915	0.0001
ROA	-0.455	-1.435	0.1519
F	5.418	R-squared	0.611
Durbin-Watson	1.579	Adjusted R-squared	0.499

Regarding the fourth sub-hypothesis of the research, according to *Table 4*, the significance level between earnings management on the coincidence of stock prices with the moderating role of CEO expertise is equal to 0.443, which is higher than the significance level considered in the current research (5%) is also the statistical absolute value of 0. 76 is lower than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that CEO expertise does not have a moderating role on the relationship between earnings management and stock prices is rejected. 76 is lower than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that CEO expertise has no moderating role on the relationship between earnings management and stock price synchronicity is confirmed, and the leading hypothesis is not rejected.

According to *Table 4*, the significance level between earnings management on stock price simultaneity and the moderating role of CEO expertise is equal to 0.000, which is lower than the significance level considered in the current research (5%), as well as the absolute value of the statistic, which is equal to 54/11, it is lower than 1. Therefore, at the 95% confidence level, the null hypothesis of no moderating role of CEO expertise on the relationship between tax aggressiveness and stock price is rejected. 96, which corresponds to the standard normal distribution of 0.95; therefore, at a 95% confidence level, the null hypothesis that CEO expertise has no moderating role on the relationship between tax aggressiveness and stock price synchronicity is rejected, and the leading hypothesis is confirmed.

Estimation of the third model at low levels of growth

Table 5. Estimation of the third model.

Variables	Coeffs	t Stats	Sig.
C	-3.778	-8.574	0.0000
EAR-MAN	-0.851	-1.02	0.3082
TAXGRE	-0.258	-0.587	0.557
TURN	-0.041	-0.701	0.4836
EXPERT	-0.075	-0.86	0.3901
EAR-MAN*TURN	0.263	1.004	0.3157
TAXGRE*TURN	0.146	1.174	0.241
BIG	-0.006	-0.066	0.9473
SIZE	0.159	4.744	0.0000
LEV	0.53	3.86	0.0001
ROA	-0.506	-1.542	0.1281
F	5.383	0.61	R-squared
Durbin-Watson	1.591	0.497	Adjusted R-squared

Regarding the seventh sub-hypothesis of the research: according to *Table 5*, the significance level between earnings management on the coincidence of share price with the moderating role of CEO tenure is equal to 0.31, which is higher than the significance level considered in the current research (5%). Also, the absolute statistical value of t, which is equal to 1.004, is lower than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that CEO tenure does not have a moderating role on the relationship between earnings management and stock price synchronicity is confirmed, and the main hypothesis is not confirmed.

Regarding the eighth sub-hypothesis of the research: according to *Table 5*, the significance level between earnings management on the coincidence of share price with the moderating role of CEO tenure is equal to 0.24, which is higher than the significance level considered in the current research (5%) is also the absolute statistical value of t, which is equal to 1. 17 is less than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that CEO tenure has no moderating role on the relationship between tax aggressiveness and stock price synchronicity is confirmed and the main hypothesis is not rejected.

Estimation of the fourth model at high levels of growth

Table 6. Estimation of the fourth model.

Variables	Coeffs	t Stats	Sig.
C	-1.246	-2.94	0.0034
Earman	0.304	0.613	0.54
Taxgre	0.41	2.039	0.0421
Turn	0.136	4.381	0.0000
Expert	-0.176	-1.186	0.2361
Big	0.285	1.959	0.0506
Size	-0.058	-2.007	0.0452
Lev	0.34	2.08	0.038
Roa	0.198	0.608	0.5429
F	5.151	R-squared	0.601
Durbin-Watson	1.541	Adjusted R-squared	0.484

Estimation of the fifth model at high levels of growth

Table 7. Estimation of the fifth model.

Variables	Coeffs	t Stats	Sig.
C	-0.936	-1.72	0.086
Eanrman	0.154	0.301	0.7628
Taxgre	1.281	3.742	0.0002
Turn	0.133	4.052	0.0001
Expert	-0.088	-0.446	0.6556
Eanrman*Expert	0.627	0.814	0.4156
Taxgre*Expert	-1.195	-3.144	0.0018
Big	0.094	0.559	0.5762
Size	-0.077	-1.85	0.0647
Lev	0.226	1.652	0.0993
Roa	0.178	0.32	0.7489
F	5.116	R-squared	0.604
Durbin-Watson	1.574	Adjusted R-squared	0.486

Regarding the fourth sub-hypothesis of the research, according to *Table 7*, the significance level between earnings management on the coincidence of stock prices with the moderating role of CEO expertise is equal to 0.41, which is higher than the significance level considered in the current research (5%) is also the statistical absolute value of 0. 81 is less than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that CEO expertise has no moderating role on the relationship between earnings management and stock price synchronicity is confirmed and the main hypothesis is not rejected.

Regarding the fifth sub-hypothesis of the research, according to *Table 7*, the significance level between earnings management on the simultaneity of stock prices and the moderating role of CEO expertise is equal to 0.0018, which is lower than the significance level considered in the current research (5%), is also the absolute statistical value of t which is equal to 3. 14 is more significant than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that CEO expertise has no moderating role on the relationship between tax aggressiveness and stock price synchronicity is not confirmed and the main hypothesis is accepted.

Estimation of the sixth model at high levels of growth

Table 8. Estimation of the sixth model.

Variables	Coeffs	t Stats	Sig.
C	-1.007	-1.614	0.1073
Earman	0.359	0.265	0.7904
Taxgre	1.66	3.66	0.0003
Turn	0.2006	2.998	0.0029
Expert	-0.197	-1.329	0.1845
Earman*Turn	-0.04	-0.093	0.9256
Taxgre*Turn	-0.582	-3.181	0.0016
Big	0.119	0.761	0.4468
Size	-0.08	-2.047	0.0413
Lev	0.294	2.549	0.0112
Roa	0.314	0.582	0.5608
F	5.174	R-squared	0.607
Durbin-Watson	1.596	Adjusted R-squared	0.49

About the sixth sub-hypothesis of the research: according to *Table 8*, the significance level between earnings management on the coincidence of the stock price with the moderating role of CEO tenure is equal to 0.92, which is higher than the significance level considered in the current research (5%) is also the absolute value of t, which is equal to 0.

Therefore, the null hypothesis that CEO tenure does not moderate the relationship between stock price and CEO tenure is rejected at the 95% confidence level. 093 is less than 1.96, which corresponds to the standard normal distribution of 0.95; therefore, at the 95% confidence level, the null hypothesis that CEO tenure has no moderating role on the relationship between earnings management and stock price synchronicity is confirmed, and the main hypothesis is not rejected.

5 | Discussion and Recommendations

The summary of the results of the analysis of the research data is as follows:

Table 1 presents the variables used in the research in terms of mean, median, standard deviation, minimum, and maximum values using quantitative methods, including the tools available in descriptive statistics. The normality of the model error was checked using the Jarko-Bara test, the results of which indicate the normality of the error distribution. According to the findings and results of the research, the following are suggested for the stock market:

According to the results of the research, it is suggested that financial analysts should pay sufficient attention to the synchronization of stock prices with emphasis on the growth conditions of the company, its management issues, and the characteristics related to the CEO in the management of joint-stock companies. They have received sufficient and necessary information in this field.

In addition, to avoid deviations caused by incorrect analyses, stockbrokers have clarified the various aspects of the relationship between the executive directors of joint stock companies and the profitability and tax issues of joint stock companies for investors in their financial analyses, and the stock exchange organization has also provided public education (such as magazines, monthly reports, and self-reports) to raise the level of general awareness on the issue of stock price synchronicity.

The following research topics are suggested for other researchers and those interested in the subject under study:

I. The role of CEO characteristics in stock return changes through risk management.

II. Investigating the effect of the CEO's expertise on the risk-taking of joint-stock companies through earnings management in low and high growth conditions of companies in the Tehran Stock Exchange.

III. Analysing the role of CEO's expertise and tenure in changes in earnings management of joint-stock companies through conservative accounting.

IV. The effect of CEO characteristics on information transparency of joint-stock companies in the Iranian capital market.

V. Investigating the role of industry in the relationship between CEO characteristics and stock price concurrency of companies in the Tehran Stock Exchange.

Data Availability

All data are included in the text.

Funding

This research received no specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

References

[1] Roll, R. (1988). The stochastic dependence of security price changes and transaction volumes: Implications for the mixture-of-distributions hypothesis. *The journal of finance*, *43*(3), 541–566. https://doi.org/10.1111/j.1540-6261.1988.tb04591.x

[2] Hutton, A. P., Marcus, A. J., & Tehranian, H. (2009). Opaque financial reports, R2, and crash risk. *Journal of financial economics*, *94*(1), 67–86. https://doi.org/10.1016/j.jfineco.2008.10.003

[3] Haggard, K. S., Martin, X., & Pereira, R. (2008). Does voluntary disclosure improve stock price informativeness? *Financial management*, *37*(4), 747–768. https://doi.org/10.1111/j.1755-053X.2008.00033.x

[4] Crawford, S. S., Roulstone, D. T., & So, E. C. (2012). Analyst initiations of coverage and stock return synchronicity. *The accounting review*, *87*(5), 1527–1553. https://doi.org/10.2308/accr-50186

[5] Foroughi, D., & Ghasemzad, P. (2015). The effect of comparability of financial statements on the simultaneity of stock prices. *Financial accounting research*, *8*(1), 39-54. (**In Persian**). https://www.sid.ir

[6] Cheng, C. A., Johnston, J., & Zhou, L. (2011). Accruals quality and price synchronicity–industry-specific and firm-specific information. *2011 American accounting association annual meeting*. https://scholars.cityu.edu.hk/en/publications/publication(fda8dad1-3b77-4e73-a345-c028e831787e).html

[7] Talebi, B., & Bahri Sales, J. (2017). Examining the relationship between the components of management accounting system, ambiguity, lack of concentration and performance of managers of production companies in Bonab city. *Management accounting*, *11*(36), 15–30. (**In Persian**). https://www.sid.ir/paper/198975/fa

[8] Neifar, S., & Ajili, H. (2019). CEO characteristics, accounting opacity and stock price synchronicity: Empirical evidence from German listed firms. *Journal of corporate accounting & finance*, *30*(2), 29–43. https://doi.org/10.1002/jcaf.22386

[9] Arlinghaus, B. P. (1998). Goal setting and performance measures. *Tax executive*, *50*, 434. https://heinonline.org/hol-cgi-bin/get_pdf.cgi?handle=hein.journals/taxexe50&section=143

[10] Setayesh, M. H., Sarvestani, A., & Seyedi, S. J. (2014). Investigating the effects of board size and independence on tax aggressiveness. *Applied research in financial reporting*, *3*(1), 7–28. (**In Persian**). https://www.arfr.ir/article_50602_en.html?lang=fa

[11] Aljifri, K. (2007). Measurement and motivations of earnings management: a critical perspective. *Journal of accounting, business & management*, *14*. https://openurl.ebsco.com

[12] Baghoomian, R., Rajabdorri, H., & Khoramin, M. (2017). Studying the relationship of personality factors and learning in accounting students. *Empirical studies in financial accounting*, *14*(55), 125–143. (**In Persian**). https://doi.org/10.22054/qjma.2017.23726.1638

[13] Karkhaneh, M., & Shahverdiani, S. (2015). Evaluation of uncertainty and the absence of focus on management accounting systems in the areas of electricity distribution company in Tehran. *Journal of*

management accounting and auditing knowledge, *4*(1394), 125-132. (**In Persian**). https://www.jmaak.ir/article_7742_999016246d7561c282719570e8e22469.pdf?lang=en

[14] Dadashi, I., Yahyazadefar, M., & Shamekhi, A. (2019). The impact of manager optimism on prices synchronization in TSE. *Journal of accounting advances*, *10*(2), 167–192. (**In Persian**). https://jaa.shirazu.ac.ir/article_4989_en.html?lang=fa

[15] HashemiFaizabadi, S. M., & Faizabadi, A. (2020). The relationship between controlling shareholders and stock price synchronization in Iran Stock Exchange. *The european physical journal special topics*, *1*(21), 19–34. (**In Persian**). https://ensani.ir/fa/article/421696

[16] Pourheidari, O., & Forughi, A. (2019). Effect of management influence on disclosure quality of accounting information. *Empirical studies in financial accounting*, *16*(61), 27-53. (**In Persian**). https://doi.org/10.22054/qjma.2019.38013.1928

[17] Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of accounting and economics*, *39*(1), 163–197. https://doi.org/10.1016/j.jacceco.2004.11.002

[18] Chen, S., Chen, X., Cheng, Q., & Shevlin, T. (2010). Are family firms more tax aggressive than non-family firms? *Journal of financial economics*, *95*(1), 41–61. https://doi.org/10.1016/j.jfineco.2009.02.003

[19] Huang, H. W., Rose-Green, E., & Lee, C. C. (2012). CEO age and financial reporting quality. *Accounting horizons*, *26*(4), 725–740. https://doi.org/10.2308/acch-50268