



The effect of corporate governance, supervision and management attributes on accounting conservatism

Abbas Ghodrati Zoeram¹, Mohammadreza Shoorvarzy^{2*}

¹MA, Student of accounting, accounting Department, Islamic Azad University, Neyshabur Branch, Iran

²Assistant Professor, accounting Department, Islamic Azad University, Neyshabur Branch, Iran

ARTICLE INFO

Article history:

Received 11 Jun 2019

Received in revised form 12 Aug 2019

Accepted 23 Sept 2019

Keywords:

corporate governance attributes,
supervision attributes,
management attributes,
accounting conservatism,

ABSTRACT

Objective: The present study aimed to examine the effect of corporate governance, supervision and management attributes on accounting conservatism on the companies listed in Tehran Stock Exchange.

Methodology: For this purpose, five main hypotheses were suggested to see if there was any significant relationship between the corporate governance (institutional ownership), supervision (type of auditing, audit's opinions) and management (the ratio of outside directors, the size of board of directors) attributes and accounting conservatism. Based on the research hypotheses and population of the study (including all the companies listed in Tehran Stock Exchange) and time of the research, the information were collected using the data in Rahavard Novin Software and examining the reports and financial statements of the companies listed in Tehran Stock Exchange through visiting the official website of the Stock Exchange.

Results: Finally, data analysis indicated that the research hypotheses have been approved. It means that the result showed there was a significant relationship between institutional ownership, type of accounting, auditing opinions, the ratio of outside directors and size of the directors' board with accounting conservatism. **Conclusion:** Therefore, it can be concluded that there is a significant relationship between corporate governance, supervision and management attributes examined in the present study with accounting conservatism.

1. Introduction

ICT in all sectors of economic, political, cultural and security of the country has created enormous changes. One Corporate governance is discussed as an issue which has emphasized on corporate strategies and the right of stockholders and its role in reducing the conflict between the stockholders and directors. This conflict of interests is related with the issue of agency which is created due to two main reasons: first, the difference between the goals and priorities of the participants in the company and second, participants' lack of information about performance, knowledge and priorities of others. According to the agency theory, the presence of outside and independent directors in the board of directors in the companies which have enough skill, independence and legal ability for corporate supervision, can be a potential mechanism of the corporate governance.

Moreover, institutional investors as one of the mechanisms of corporate governance will help to align the interests of shareholders and this alignment causes increase in shareholders' influence on the management. In addition, the concentration of ownership which is caused from the absolute control of major shareholders in the governance could reduce agency problems of the company because major shareholders by having enough information can have a better control on management performance. In recent years an extensive background which has been considered in the scientific community is the issue of representation and motivation of directors to transfer the wealth and value of the company in their own interests. In this regard, some researches have been conducted in relation to whether conservatism can be an effective mechanism in financial reporting to strengthen corporate governance.

* Corresponding author: Mohammadreza.Shoorvarzy@gmail.com

DOI: <https://doi.org/10.24200/jmas.vol7iss04pp34-45>

Conservatism is one of the characteristics of financial reporting which in the form of a restrictive covenant in the framework of the principles and concepts of accounting play an important role in limiting the optimistic behaviors of the directors as the information providers and estimation of the minimum income by investors and creditors as the main users.

Evidences show that conservative reporting is effective in reducing agency problems and information asymmetry and conservatism in financial reporting can be used as an alternative measure of effective corporate governance mechanisms because the directors' optimistic conservatism in behavior reduces the agency problems and neutralizes the biased behavior of the director and limits the principal opportunistic payments on them and divides the increased value of the company among all the participating contractors and increases the welfare of all groups in this concept of conservatism as a conventional functioning mechanism. The present study aims to examine the effect of corporate governance, supervision and management attributes on accounting conservatism. The main purpose of the study is to examine the relationship between the corporate governance (institutional ownership), supervision (type of auditing, audit's opinions) and management (the ratio of outside directors, the size of board of directors) attributes and accounting conservatism.

1.1 Research Background

Basically, research background has three main missions:

1. Updates the knowledge of the researcher.
2. Suggests that the relationship between the researcher's work and the works of the others and the extent they facilitate the work of the researcher.
3. Shows the research that people have not responded to questions.

Therefore, in this study, the following findings are reviewed in the field of national and international research.

1.2 International Research

Basu (1997) in a study examined conservatism impact on the financial statements. He interpreted conservatism in accounting as timely identification of more bad news than good news. Timelier identification of bad news implies that profits compared to negative returns is more sensitive than profit compared with positive returns at any time. He showed that profit sensitivity to negative returns was two to six times greater than the sensitivity of profit to positive returns. Moreover, Basu showed that timelier profit is mainly due to more timely recognition of bad news via accruals (or cash flow). On the other hand, accruals and cash flow were not different in the timing of recognition of good news in financial statement.

Adham (2007) in a study entitled as the role of conservative accounting in reducing tensions between creditors and shareholders concluded that conservatism reduces the conflict between creditors and shareholders by meeting the credit demands of the present in order to provide lower income and thus reducing the dividend. In addition, the accounting conservatism forces directors to investment in projects with positive net present value and investment directors to prevent projects with negative returns. The relationship between the percentage of shares owned by members of the board and there conservatism.

Mahroomi (2009) suggested that differences in ownership structure had justified the deviations in performance. This indicated that the characteristics of the property were important because they affected the desired rate of return and also affected diversification strategy. Also, they claimed that the ownership structure could solve the problem of agency and affect the Company's reporting. They further suggested that when there were high levels of ownership concentration, the investors would be able to control the accounting information and reporting methods.

Shabahang (2008) in a study entitled as "the relationship between timeliness as profits, earnings conservatism and board composition" considered conservatism and timeliness profit as earnings quality criteria. They used a sample selected from UK and by using asymmetric timeliness of earnings provided by Basu (1997) concluded that companies with more independent board members had been more conservative. Thus, they concluded that the composition of the Board of Directors was important factor in determining the quality of reported earnings by the British companies.

Bauwhede (2007) in a study examined the relationship between conservatism and the cost of capital. They noted that the conservatism would cause a vigorous reduction of future performance and on the other hand could enhance the quality of financial information by reducing the company's overall risk. He argued that reducing the effective cost of capital, which fit together by neutralizing each other causes the effect of making capital expenditures to remain stable.

Bigusy and et al (2009) in a study entitled as "The evidence of the role of accounting conservatism in corporate governance" among 750 US companies conducted between 2001-1991, had used three criteria to assess conservatism and showed that: there was a positive relationship between (1) the percentage of shares of outside directors (standard independent board members) and conservatism, 2: there was significant relationship between conservatism and the ownership of the institutional investors.

1.3 National Studies

Bani Mahd (2006) in a study that examined the ways of measuring conservatism and based on the sample companies of Tehran Stock Exchange which were selected from 1994 to 2005 concluded that conservatism is reduced in accounting due to lower return on assets and reduced return on assets cash and also increasing the long-term debt resulted in reducing the conservatism in accounting. Other findings of the study were that conservatism would increase by increasing the company's operations.

Rezazadeh and Azad (2008) examined the relationship between information asymmetry between investors and the conservatism in financial reports. The research assumptions were as follows:

As the information asymmetry between investors is higher, there will be more conservative in their financial statements.

Changes in information asymmetry between investors led to changes in the conservatism of the financial statements.

They used the Basu (1997) measure to assess the scale of conservatism which had already been explained. Rezazadeh and Azad on the basis of this study concluded that if there was information asymmetry between investors, companies would have greater conservative-operating income. The asymmetric

recognition of revenue and expenses in the financial statements would change in accordance with the level of information asymmetry. They also found that by varying the degree of information asymmetry between investors, the degree of conservatism in financial reporting firms would be increased.

Givoly and Hayn (2000) found that there was a significant relationship between auditor tenure and realized conservatism. In addition to this finding, it was found that by separating the sample into three groups based on tenure, the initial results were observed that conservatism increased along with increasing tenure. The results indicated that the tenure short period of conservatism was shorter and mandatory auditor rotation had the opposite effect on conservatism.

Francis and et al (2004) in this study examined the relationship between the variables of size, the degree of industry competition, the intensity of investment, risk, state ownership, and ownership concentration with conservatism. The results showed that the conservative was reduced with increasing the size. Also, there was a direct relationship between the degree of competition in the industry and governmental ownership with conservatism. There was no significant relationship between risk and the effective tax rate and there was an inverse relationship between the intensity of investment and ownership concentration with conservatism.

Guay and Verrecchia (2007) aimed to outline the impact of public property capital Tehran Stock Exchange on Conservatism and therefore examined the conservatism differences in financial reporting of 40 companies in the two periods before and after their name were listed in exchange rates of the Tehran Securities during 2008-2012. They concluded that conservatism in their financial reporting decreased after their names were listed in exchange rates.

Iatridis (2011) in their study examined the relationship between institutional ownership and accounting conservatism. They suggested that conservative in accounting practices of the directors prevented them from the opportunistic behavior and increased the reliability of financial information. They concluded that increasing the level of institutional ownership would increase the willingness of companies to use more conservative procedure.

2. Materials and methods

2.1 Test Model

In this study, to evaluate the method of accounting conservatism Folsom (2009) were used. Conservatism means that accountants should be applied to assets and income to the lowest amount possible for the highest amount possible liabilities and expenses report. Therefore, it is possible to determine the current net value of the assets is less than the price of the transaction. Conservatism as a profit quicker response to bad news than good news earnings response is measured. The earnings response to bad news is greater than the conservatism higher

2.2 Regression Model

Conservatism based on Gvly and Hainan and the following formula is calculated. The resulting value of the formula is the more, the higher the level of conservatism.

$$C_{it} = \frac{ER_{it}}{TOA_{it}}$$

ER_{it}: operating income + depreciation - Cash Flows

TOA_{it}: Total assets

Another model used to test the hypothesis of this study is a regression model in which the level of accounting conservatism (calculated as Gvly and Hainan) is a function of the independent variables and control variables research is. This model is as follows.

2.3 Hypothesis

First hypothesis: there is a significant relationship between institutional ownership and accounting conservatism

The second hypothesis: there is a significant relationship between the auditor and accounting conservatism.

The third hypothesis: there is a significant relationship between the auditor's report and accounting conservatism.

The fourth hypothesis: there is a significant relationship between the ratio of outside directors on the board and accounting conservatism.

Fifth hypothesis: there is a significant relationship between the size of the board and accounting conservatism.

2.4 Research Methodology

The present study is an applied research in terms of purpose. The aim of applied research is the development of practical knowledge in a particular field. At the same time, in terms of collecting and analyzing data, this study is a descriptive correlational research. The purpose of this study is to examine the amount of changes in one or more variables with some changes in some other variable. In this study, descriptive statistics, correlation and regression analysis were used to analyze the data.

2.5 Research Variables

variables	Type of variables	calculation	data	resource
conservatism	Dependent variable	$C_{it} = \frac{ER_{it}}{TOA_{it}}$	ER _{it} :operational profit + cost of depreciation – operational cash flow TOA _{it} : total assets	Givoly, D., and C.K. Hayn. (2000).
Institutional ownership)Ins(Dependent variable	Is equal to the total stock investment companies, foundations, institutions and organizations, etc. who are considered as institutional investors because of their long-term horizon	The percentage of shares owned by the shareholders rights	Pourheydari and hemati (2004)
)auditor type(Dependent variable	It is 1 for the companies that have been examined by the auditor, and it is 0 for the firms that were audited by a trustee from audit institutions in Tehran Stock Exchange	Type of audit in the firms	Gagatis et al (2007)
Auditor opinion (OPINION)	Dependent variable	Companies that have reported been adjusted for a number of other companies have got zero.	Auditor's Report	Dilowit (2010)
The ratio of outside directors in board of directors (BID)	Dependent variable	The ratio of outside directors on the board	The number of outside directors on the Board of Directors	Stamie and Tower (2006)
Board of directors' size (BS)	Dependent variable	The natural logarithm of the size of the board	The number of board members	Stamie and Tower (2006)
Size	Control variable	Company size: is calculated by the log book value of total assets	Book value of total assets	Khan and Watts (2007)
Levit	Control variable	Financial leverage ratio of debt to assets	The amount of liabilities and assets	Khan and Watts (2007)
M/B	Control variable	It is calculated by the market value of equity divided by the book value at the end of the financial period.	The amount of equity	Khan and Watts (2007)
ROA	Control variable	Return on assets	return, total assets	Khan and Watts (2007)

2.6 Population, sample size and sampling

The population is a collection of individuals or entities that have at least one common trait. In each study, the studied population is a population study which the researcher wants to examine the characteristic or adjectives of the variables. The population of the present study included all the companies listed in Tehran Stock Exchange respectively.

In this study, the financial statements of a sample of companies listed on Tehran Stock Exchange during a period of 4 years from 2009 to 2012 were examined. All the companies listed on the Tehran Stock Exchange were included as the study population. The statistical sampling was not used in this study. The sample companies are selected using the systematic removal procedure and based on the following criteria:

- They should not be among the holding and investment companies.
- They should not be among the banks since they will be deleted due to the specific nature of their work

2.7 Data collection

Due to the nature of the present study, two methods of field and library research methods were used.

Library Research: the present study used the library resources including books, journals, theses, articles and the Internet. This procedure is usually used for preliminary studies, the formulation of the research literature and theoretical framework.

Field study: in order to collect data on the hypotheses, the researcher would refer to the sample of companies listed on the stock exchange. After the information were collected using the data in Rahavard Novin Software and examining the reports and financial statements of the companies listed in Tehran Stock Exchange through visiting the official website of the Stock Exchange, they would be analyzed using Spss software.

Data Analysis

In order to better understand the nature of the population studied in the research, it is better to learn more about research variables, before being paid to test hypotheses, research variables are summarized in Table (1-4) and were examined. Information tables are provided with statistical data describing a step towards recognition of the pattern of relationships between the variables that are the basis for applied research. These indicators include measures of central and dispersion indices such as mean, median, standard deviation, skewness, kurtosis, and distribution of indices (Knoops, 2010).

Results

Table 1. the index describing the research variables using central tendency, measures of dispersion and distribution indicators

	Number	Mean	Standard Deviation	Variance	Skewness coefficient	Kurtosis Coefficient
Financial leverage	624	.0971	.12042	.015	2.903	10.310
Company size	624	22.6348	10.10947	102.201	-1.742	1.161
The type of auditor	624	.4071	.49168	.242	.379	-1.862
Institutional Ownership	624	.4454	.17983	.032	.380	.594
Conservatism	624	-.6391	.89995	.810	3.602	24.345
outside Directors on the Board of Directors	624	.6210	.20189	.041	-.069	-.810
Auditor's report	624	.5721	.49517	.245	-.292	-1.921
Board size	624	.6775	.25812	.067	-2.165	2.954
Market value to book capital	624	1.4150	3.94934	15.597	-9.813	118.014
Return on Assets	624	8.7102	12.65288	160.095	.390	2.187

Table 1 shows the features of the research variables and the first column indicates the number of all data for all the variables is 624.

2.8 Data Normality

In order to use the proper statistical techniques, it must be first determined that data distribution is normal or abnormal? Since in the case of normal distribution of data the parametric tests can be used to test hypotheses and in the case of abnormal distribution, the use of non-parametric tests is recommended. Therefore, at this stage, the results of the tests on each of the dependent and independent variables will be discussed and then based on the results, appropriate tests will be selected to verify the research hypotheses chosen. The results of Kolmogorov-Smirnov test are in provided table (2):

$$\begin{cases} H_0: \text{distribution of data is normal (claim)} \\ H_1: \text{distribution of data is not normal} \end{cases}$$

Table 2. The results of Kolmogorov-Smirnov test

variable	Normal parameter	Maximum standard deviation			Kolmogorov-Smirnov test	Sig.
	mean	absolute value	Maximum negative standard deviation	Maximum positive standard deviation		
conservatism	-.1977	.125	-.125	.091	.750	.627

According to Table 2, it can be concluded from the Kolmogorov-Smirnov test that because the value of the variable was significantly higher than the significance level for the test ($\alpha = 0.05$) is, the data are normally distributed.

3. Discussion and results

3.1 The results of the first hypothesis

H0: there is a significant relationship between institutional ownership and accounting conservatism.

H1: there is a significant between institutional ownership and accounting conservatism

Regression model for testing data hypothesis is presented as:

$$C_{it} = \beta_0 + \beta_1 \text{Ins}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{LEVERAGE}_{it} + \beta_4 \text{ROA}_{it} + \beta_5 \text{MB}_{it} + \varepsilon_{it}$$

At first stage, in order to evaluate and test the assumptions, the relationship between institutional ownership and accounting conservatism was studied. This is because we can use regression when the existence of a correlation between variables has been proven. If the correlation coefficient between institutional ownership and accounting conservatism at the confidence level of at least 95 percent is larger than 0.50, in this case, the statistical hypothesis will be rejected and assuming a confidence level of at least 95 percent is acceptable (Li, 2009).

Table 3. Pearson correlation coefficient significance level and the number of samples between institutional ownership and accounting conservatism

dependent variable independent variable		conservatism
Institutional ownership	Pearson correlation coefficient	-.235
	Sig.	0.038
	Number	624

Table (3) shows the correlation coefficient, significance level and provides data according to which Pearson correlation coefficient between institutional ownership and accounting conservatism is equal to -0.235, respectively. The number at the error level of 0.05 indicates the intensity of the relationship between two variables. According to the results of the Spss output, (tables) since the significance level is less than 0.05, the null hypothesis is rejected at the level of 5 percent and the correlation between these two variables is confirmed.

Table 4. The correlation coefficient, determination coefficient and Durbin-Watson test between institutional ownership and accounting conservatism

Model	Correlation coefficient	Determination coefficient	Modified determination coefficient	Standard deviation of estimation	Durbin-Watson
1	.892	.797	.763	.78431	1.729

According to Table (4) correlation coefficient among the variables is 0.892 and the coefficient of determination calculated as 0.797 which indicates the number of changes in the variable institutional conservatism which can be explained by the institutional ownership change. One of the regression assumptions is the independence of errors, if the assumption of independence of errors is rejected, and errors are correlated with each other, it is not possible to use regression (Ohlson, 1995).

Durbin-Watson statistic was used to assess the independence of each error if the Durbin-Watson statistic is between 1.5 and 2.5, the assumption of correlation between errors is rejected and regression can be used. The Durbin-Watson statistic in the table (4) is 1.729, which implies that errors are independent of each other and there is no correlation between their errors and error correlation assumption is rejected and regression can be used. Table 5 shows the variance analysis in which F-statistic and significance level (Sig) are used for the significant of total regression and the null hypothesis is rejected and the alternative hypothesis is used to describe the significant for the following:

- { There is no significant model or there is not a linear relationship between two variables. : H_0
 { There is a significant model or there is a linear relationship between two variables: H_1

The level of significance is sig = .000, which is much smaller than 0.05. Thus the hypothesis is rejected and the alternative hypothesis will be accepted. That is, there is a significant model or there is a linear relationship between two variables.

3.2 The results of the second hypothesis

H0: there is a significant relationship between auditor type and accounting conservatism.

H1: there is a significant between auditor type and accounting conservatism

Regression model for testing data hypothesis is presented as:

$$C_{it} = \beta_0 + \beta_1 \text{auditor type}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{LEVERAGE}_{it} + \beta_4 \text{ROA}_{it} + \beta_5 \text{MB}_{it} + \varepsilon_{it}$$

At first stage, in order to evaluate and test the assumptions, the relationship between auditor type and accounting conservatism was studied. This is because we can use regression when the existence of a correlation between variables has been proven. If the correlation coefficient between auditor type

and accounting conservatism at the confidence level of at least 95 percent is larger than 0.50, in this case, the statistical hypothesis will be rejected and assuming a confidence level of at least 95 percent is acceptable (Qiang, 2007).

Table 6. Pearson correlation coefficient significance level and the number of samples between auditor type and accounting conservatism

dependent variable independent variable		conservatism
Auditor type	Pearson correlation coefficient	.022
	Sig.	0.039
	Number	624

Table (6) shows the correlation coefficient, significance level and provides data according to which Pearson correlation coefficient between auditor type and accounting conservatism is equal to -0.22, respectively. The number at the error level of 0.05 indicates the intensity of the relationship between two variables. According to the results of the Spss output, (tables) since the significance level is less than 0.05, the null hypothesis is rejected at the level of 5 percent and the correlation between these two variables is confirmed.

Table 7. The correlation coefficient, determination coefficient and Durbin-Watson test between auditor type and accounting conservatism

Model	Correlation coefficient	Determination coefficient	Modified determination coefficient	Standard deviation of estimation	Durbin-Watson
1	.886	.784	.748	.80740	1.874

According to Table (7) correlation coefficient among the variables is 0.886 and the coefficient of determination calculated as 0.784 which indicates the number of changes in the variable accounting conservatism which can be explained by the auditor type change. One of the regression assumptions is the independence of errors, if the assumption of independence of errors is rejected, and errors are correlated with each other, it is not possible to use regression.

Durbin-Watson statistic was used to assess the independence of each error if the Durbin-Watson statistic is between 1.5 and 2.5, the assumption of correlation between errors is rejected and regression can be used. The Durbin-Watson statistic in the table (7) is 1.874, which implies that errors are independent of each other and there is no correlation between their errors and error correlation assumption is rejected and regression can be used (Ryan, 2006).

Table 8. variance analysis in which F-statistic and significance level

model	Sum of square	df	Mean square	statistics F	Sig.
Regression	71.142	5	14.228	21.826	.000
Residual	19.557	30	.652		
total	90.698	35			

Table 8 shows the variance analysis in which F-statistic and significance level (Sig) are used for the significant of total regression and the null hypothesis is rejected and the alternative hypothesis is used to describe the significant for the following:

{ There is no significant model or there is not a linear relationship between two variables. : H_0 .
 { There is a significant model or there is a linear relationship between two variables: H_1

The level of significance is sig = .000, which is much smaller than 0.05. Thus the hypothesis is rejected and the alternative hypothesis will be accepted. That is, there is a significant model or there is a linear relationship between two variables.

3.3 The results of the Third hypothesis

H0: there is a significant relationship between auditor opinion and accounting conservatism.

H1: there is a significant between auditor opinion and accounting conservatism

Regression model for testing data hypothesis is presented as:

$$C_{it} = \beta_0 + \beta_1 \text{OPINION}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{LEVERAGE}_{it} + \beta_4 \text{ROA}_{it} + \beta_5 \text{MB}_{it} + \varepsilon_{it}$$

At first stage, in order to evaluate and test the assumptions, the relationship between auditor opinion and accounting conservatism was studied. This is because we can use regression when the existence of a correlation between variables has been proven. If the correlation coefficient between opinion and accounting conservatism at the confidence level of at least 95 percent is larger than 0.50, in this case, the statistical hypothesis will be rejected and assuming a confidence level of at least 95 percent is acceptable.

Table 9. Pearson correlation coefficient significance level and the number of samples between auditor opinion and accounting conservatism

dependent variable independent variable		conservatism
Auditor opinion	Pearson correlation coefficient	.195
	Sig.	0.43
	Number	624

Table (9) shows the correlation coefficient, significance level and provides data according to which Pearson correlation coefficient between auditor opinion and accounting conservatism is equal to -0.195, respectively. The number at the error level of 0.05 indicates the intensity of the relationship between two variables. According to the results of the Spss output, (tables) since the significance level is less than 0.05, the null hypothesis is rejected at the level of 5 percent and the correlation between these two variables is confirmed.

Table 10. The correlation coefficient, determination coefficient and Durbin-Watson test between auditor opinion and accounting conservatism

Model	Correlation coefficient	Determination coefficient	Modified determination coefficient	Standard deviation of estimation	Durbin-Watson
1	.887	.788	.752	.80151	1.944

According to Table (10) correlation coefficient among the variables is 0.887 and the coefficient of determination calculated as 0.788 which indicates the number of changes in the variable accounting conservatism which can be explained by the auditor opinion change. One of the regression assumptions is the independence of errors, if the assumption of independence of errors is rejected, and errors are correlated with each other, it is not possible to use regression.

Durbin-Watson statistic was used to assess the independence of each error if the Durbin-Watson statistic is between 1.5 and 2.5, the assumption of correlation between errors is rejected and regression can be used. The Durbin-Watson statistic in the table (10) is 1.944, which implies that errors are independent of each other and there is no correlation between their errors and error correlation assumption is rejected and regression can be used (Xi Liy, 2010).

Table 11. variance analysis of regression between the variables of auditor opinion and accounting conservatism

model	Sum of square	df	Mean square	statistics F	Sig.
Regression	71.426	5	14.285	22.237	.000a
Residual	19.273	30	.642		
total	90.698	35			

Table 11 shows the variance analysis in which F-statistic and significance level (Sig) are used for the significant of total regression and the null hypothesis is rejected and the alternative hypothesis is used to describe the significant for the following:

- { There is no significant model or there is not a linear relationship between two variables. : H_0 .
There is a significant model or there is a linear relationship between two variables: H_1

The level of significance is sig = .000, which is much smaller than 0.05. Thus the hypothesis is rejected and the alternative hypothesis will be accepted. That is, there is a significant model or there is a linear relationship between two variables.

3.4 The results of the fourth hypothesis

H0: there is a significant relationship between the ratio of outside directors and accounting conservatism.

H1: there is a significant between the ratio of outside directors and accounting conservatism

Regression model for testing data hypothesis is presented as:

$$C_{it} = \beta_0 + \beta_1 BID_{it} + \beta_2 SIZE_{it} + \beta_3 LEVERAGE_{it} + \beta_4 ROA_{it} + \beta_5 MB_{it} + \varepsilon_{it}$$

At first stage, in order to evaluate and test the assumptions, the relationship between the ratio of outside directors and accounting conservatism was studied. This is because we can use regression when the existence of a correlation between variables has been proven. If the correlation coefficient between the ratio of outside directors and accounting conservatism at the confidence level of at least 95 percent is larger than 0.50, in this case, the statistical hypothesis will be rejected and assuming a confidence level of at least 95 percent is acceptable.

Table 12. Pearson correlation coefficient significance level and the number of samples between the ratio of outside directors and accounting conservatism

conservatism		conservatism
dependent variable	independent variable	
List of outside directors in board of directors	Pearson correlation coefficient	.104
	Sig.	.46
	Number	624

Table (12) shows the correlation coefficient, significance level and provides data according to which Pearson correlation coefficient between the ratio of outside directors and accounting conservatism is equal to -0.104, respectively. The number at the error level of 0.05 indicates the intensity of the relationship between two variables. According to the results of the Spss output, (tables) since the significance level is less than 0.05, the null hypothesis is rejected at the level of 5 percent and the correlation between these two variables is confirmed.

Table 13. The correlation coefficient, determination coefficient and Durbin-Watson test between the ratio of outside directors and accounting conservatism

Model	Correlation coefficient	Determination coefficient	Modified determination coefficient	Standard deviation of estimation	Durbin-Watson
1	.885	.783	.747	.80973	1.941

According to Table (13) correlation coefficient among the variables is 0.885 and the coefficient of determination calculated as 0.783 which indicates the number of changes in the variable accounting conservatism which can be explained by the ratio of outside directors change. One of the regression assumptions is the independence of errors, if the assumption of independence of errors is rejected, and errors are correlated with each other, it is not possible to use regression.

Durbin-Watson statistic was used to assess the independence of each error if the Durbin-Watson statistic is between 1.5 and 2.5, the assumption of correlation between errors is rejected and regression can be used. The Durbin-Watson statistic in the table (13) is 1.941, which implies that errors are independent of each other and there is no correlation between their errors and error correlation assumption is rejected and regression can be used.

Table 14. variance analysis of regression between the variables of auditor opinion and accounting conservatism

model	Sum of square	df	Mean square	statistics F	Sig.
Regression	71.028	5	14.206	21.666	.000a
Residual	19.670	30	.656		
total	90.698	35			

Table 14 shows the variance analysis in which F-statistic and significance level (Sig) are used for the significant of total regression and the null hypothesis is rejected and the alternative hypothesis is used to describe the significant for the following:

$\left\{ \begin{array}{l} \text{There is no significant model or there is not a linear relationship between two variables. : } H_0 \\ \text{There is a significant model or there is a linear relationship between two variables: } H_1 \end{array} \right.$

The level of significance is $\text{sig} = .000$, which is much smaller than 0.05. Thus the hypothesis is rejected and the alternative hypothesis will be accepted. That is, there is a significant model or there is a linear relationship between two variables.

3.5 The results of the fifth hypothesis

H0: there is a significant relationship between the board of directors' size and accounting conservatism.

H1: there is a significant between the board of directors' size and accounting conservatism

Regression model for testing data hypothesis is presented as:

$$C_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 SIZE_{it} + \beta_3 LEVERAGE_{it} + \beta_4 ROA_{it} + \beta_5 MB_{it} + \varepsilon_{it}$$

At first stage, in order to evaluate and test the assumptions, the relationship between the board of directors' size and accounting conservatism was studied. This is because we can use regression when the existence of a correlation between variables has been proven. If the correlation coefficient between the board of directors' size and accounting conservatism at the confidence level of at least 95 percent is larger than 0.50, in this case, the statistical hypothesis will be rejected and assuming a confidence level of at least 95 percent is acceptable.

Table 15. Pearson correlation coefficient significance level and the number of samples between the board of directors' size and accounting conservatism

dependent variable independent variable		conservatism
the board of directors' size	Pearson correlation coefficient	.308
	Sig.	.017
	Number	624

Table (15) shows the correlation coefficient, significance level and provides data according to which Pearson correlation coefficient between the board of directors' size and accounting conservatism is equal to -0.104, respectively. The number at the error level of 0.05 indicates the intensity of the relationship between two variables. According to the results of the Spss output, (tables) since the significance level is less than 0.05, the null hypothesis is rejected at the level of 5 percent and the correlation between these two variables is confirmed.

Table 16. The correlation coefficient, determination coefficient and Durbin-Watson test between the board of directors' size and accounting conservatism

Model	Correlation coefficient	Determination coefficient	Modified determination coefficient	Standard deviation of estimation	Durbin-Watson
1	.885	.783	.747	.80973	1.941

According to Table (16) correlation coefficient among the variables is 0.885 and the coefficient of determination calculated as 0.783 which indicates the number of changes in the variable accounting conservatism which can be explained by the board of directors' size change. One of the regression assumptions is the independence of errors, if the assumption of independence of errors is rejected, and errors are correlated with each other, it is not possible to use regression.

Durbin-Watson statistic was used to assess the independence of each error if the Durbin-Watson statistic is between 1.5 and 2.5, the assumption of correlation between errors is rejected and regression can be used. The Durbin-Watson statistic in the table (17) is 1.958, which implies that errors are independent of each other and there is no correlation between their errors and error correlation assumption is rejected and regression can be used.

Table 17. variance analysis of regression between the variables of auditor opinion and accounting conservatism

model	Sum of square	df	Mean square	statistics F	Sig.
Regression	71.028	5	14.206	21.666	.000a
Residual	19.670	30	.656		
total	90.698	35			

Table 17 shows the variance analysis in which F-statistic and significance level (Sig) are used for the significant of total regression and the null hypothesis is rejected and the alternative hypothesis is used to describe the significant for the following:

{ There is no significant model or there is not a linear relationship between two variables. : H_0 .

There is a significant model or there is a linear relationship between two variables: H_1

The level of significance is $\text{sig} = .000$, which is much smaller than 0.05. Thus the hypothesis is rejected and the alternative hypothesis will be accepted. That is, there is a significant model or there is a linear relationship between two variables

4. Conclusion

According to this study, the studies conducted examining the relationship between conservatism and corporate governance also showed that there had been a significant relationship between corporate governance mechanisms (ownership and influence of the government, the shares of the largest shareholder, and the chairman of the board of directors) and accounting conservatism. On the other hand, some researchers have concluded that there is no significant relationship between corporate governance mechanisms and conservatism in financial reporting.

Thus, in the first hypothesis, it could be concluded that the index of the accounting conservative has a significant effect on the institutional ownership and there is an inverse relationship between institutional ownership and accounting conservatism. This means that accounting conservatism decreases with an increase in institutional ownership and the indicator of institutional ownership increases with decreasing conservative.

And also in the second hypothesis, it can be concluded that the type of auditor is effective on accounting conservatism index. And there is a significant relationship between the auditor type and the index of accounting conservative. This means that a change of auditor type leads to direct change in conservatism index.

And in the third hypothesis, it can be concluded that the auditor's opinion is effective on accounting conservative criteria. And there is a significant negative relationship between the auditor's opinion and the indicator of accounting conservatism. This means that by changing the auditor's opinion, conservatism index will also be changed.

And also in the fourth hypothesis, it can be concluded that the ratio of outside directors is effective on accounting conservatism index. And there is a significant relationship between the ratio of outside directors and the index of accounting conservative. This means that a change of the ratio of outside directors leads to direct change in conservatism index.

And in the fifth hypothesis, it can be concluded that the board of directors' size is effective on accounting conservative criteria. And there is a significant negative relationship between the board of directors' size and the indicator of accounting conservatism. This means that by changing the board of directors' size, conservatism index will also be changed.

4.1 Research limitations

Limitations of the study include those factors that impede the collection of information and achieving good results and are mainly divided into two categories: 1) The Limitations under the researcher's control and 2) The Limitations out of the researcher's control.

The researchers are often restricted in their research so that some of them are shown even in the beginning. One of the main pillars is related to accessing research data and information. There are problems in this area which led the research services such as access to books, magazines, statistics, databases, etc. in the country simply not be possible. A part of the problem stems from the lack of any of the above-mentioned research services and the other one is the wrong culture based on which these cases are considered private and thus the people and institutions avoid transferring its findings to others. In addition, there are unwanted variables that may be the result of special projects and methods that are used in research, often in different ways and put the internal and external validity of the research at risk. The researchers should be aware that in the Behavioral Sciences Research, it is impossible to control or totally eliminate these factors. However, the researchers try to predict these factors as much as possible, and then identify and apply all necessary precautions to reduce them. In all the research which are done, the restrictions are an integral part of the research, because the limitation can provide the basis for new research. This is also not an exception. In this study there have been some limiting factors the most important of which are described below: Shortages or a lack of available scientific literature and scientific resources that are very limited (at least in Persian) in this field and are directly relate to the subject of study and research.

Lack of the same studies conducted in this respect (despite much effort, researchers failed to find research that directly dealt with this subject).

Lack of necessary funds to carry out and for the development of the work (any work at different stages of their research requires financial expenditure which arguably student research scholar is no exception regarding this issue due to special circumstances).

The collected and tested data in this study includes the companies listed in Tehran Stock Exchange during the years 2009 to 2012. Since by increasing the information and the number of observations, test results and consequently the validity of research results would be higher, may different results could be achieved by increasing the time period.

Although it has been widely tried to observe the proper data collection and accuracy but because of poor intelligence source in previous years, a number of companies were excluded from the test sample.

REFERENCES

- Adham, 2007. the role of accounting conservatism on earnings quality and stock returns, Islamic Azad University, Science and Research.
- Bani Mahd, Bahman, 2006. explain and provide a model for the measurement of accounting conservatism, Ph.D. Thesis, Islamic Azad University, Science and Research.
- Basu, S. 1997. The conservatism principle and the asymmetric timelines of earnings. *Journal of Accounting and Economics* 24: 3-37.
- Bauwhede, H. 2007. The Impact of Conservatism on the Cost of Debt: Conditional versus Unconditional Conservatism. Vlerick Leuven Gent Management School. [http://www .proques t.com](http://www.proquest.com)
- Bigusy, J., Schachnerzund, L. & Stein, I. 2009. Relationship Lending and Conservative Accounting? <http://www .proquest .com>
- Folsom, D. 2009. "Competitive Structure and Conditional Accounting Conservatism"; A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in Business Administration in the Graduate College of The University of Iowa"; online; <http://www.proquest.com>
- Francis, J. & et al. 2004. "Cost of Capital and Earnings Attributes"; *Accounting Review*.79; 967-1010.
- Givoly, D. & Hayn, K. 2000. The changing time-series properties of earnings, cash flows and accruals: Has financial reporting become more conservative? *Journal of Accounting and Economics* 29: 287-320.
- Guay, W. & Verrecchia, R. 2007. Conservative disclosure. Working paper, Wharton School of Business, University of Pennsylvania.
- Iatridis, G. 2011. Accounting disclosures, accounting quality and conditional and unconditional conservatism. *International Review of Financial Analysis*. 20 (2011) 88–102
- Knoops. C. 2010. Accounting conservatism. ERASMUS UNIVERSITY ROTTERDAM. Erasmus School of Economics
- Li, J. 2009. Accounting Conservatism and Debt Contracts: Efficient Liquidation and Covenant Renegotiation. Columbia Business School. <http://www .proquest .com>
- Mahroomi, R. 2009. Value of Financial Accounting conservative and non-conservative. Master thesis. Shahid Bahonar University
- Ohlson, J. 1995. Earnings, book values, and dividends in equity valuation. *Contemporary Accounting Research* 11: 661-687.
- Qiang, X. 2007. The effects of contracting, litigation, regulation, and tax costs on conditional and unconditional conservatism: Cross-sectional evidence at the firm level. *The Accounting Review* 82 (3): 759-796.
- Rezazadeh, J. & Azad, A. 2008. the relationship between information asymmetry and conservatism in financial reporting, accounting and audit review, Volume 15, Number 54: 80 -63
- Ryan, S. 2006. Identifying conditional conservatism. *European Accounting Review*, 15(4): 511-525.
- Shababang, R. 2008. Accounting Theory. I, Accounting and Auditing Research Center Audit, Sixth Edition.
- Xi Liy, x. 2010. Accounting conservatism and the cost of capital: international analysis. London Business School. . <http://www .proquest .com>

How to Cite this Article:

Ghodrati Zoeram A., Shoorvarzy M., The effect of corporate governance, supervision and management attributes on accounting conservatism, *Uct Journal of Management and Accounting Studies* 7(4) (2019) 34–45.