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Corporate Tax Avoidance and Its Relationship with Managers' Overconfidence and Audit Committee Characteristics

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Abstract

The purpose of this research is to examine the relationship between managers' overconfidence and tax avoidance with the moderating role of audit committee characteristics. To achieve the goal of the research, first, the relationship between managers' overconfidence and tax avoidance was investigated. Then, the relationship between audit committee characteristics and tax avoidance was investigated, and finally, the role of audit committee characteristics on the relationship between managers' overconfidence and tax avoidance was investigated. The statistical sample of this research includes 164 companies admitted to the stock exchange between 2014 and 2019. The research findings showed that there is no significant relationship between managers' overconfidence and tax avoidance. Among the characteristics of the audit committee, there is no significant relationship between financial expertise and independence of the audit committee and tax avoidance, but there is a negative and significant relationship between the size of the audit firm and tax avoidance. Also, the characteristics of the audit committee do not have a significant effect on the relationship between managers' overconfidence and tax avoidance.

Key words

Tax avoidance, Overconfidence of managers, Audit committee characteristics

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Introduction

A tax is a compulsory tax on income, wealth, consumption or profit that the government imposes on its citizens and those who live in its jurisdiction in order to increase income power, redistribute income and financial exchange, and is a tool for reconstruction (1). Despite the good intentions to collect taxes, one of the main bottlenecks of this system is the problem of tax avoidance, and this is common in developed and developing countries, because for companies, paying taxes is an important and necessary operational cost that they incur (2). Therefore, managers plan their company's activities in order to reduce the impact of taxes on shareholders' wealth. Many researchers (3-6) investigated the determinants of tax avoidance, such as social responsibility, managers' overconfidence, political connections, and corporate governance mechanisms. In recent research, the effect of managers' activities on corporate tax avoidance has been investigated, and increasing the understanding of the "managers' effect" on tax avoidance is an important question for future research. Based on agency theory, managers draw the moral, cultural and economic atmosphere of the company based on their decisions and are directly or indirectly responsible for making strategic decisions (7). Based on this, the characteristics, personality, behavior and attitude of managers have an effect on the various strategies implemented by them in the company, including making decisions about avoiding corporate taxes (8). Also, research also states that a person's personality significantly affects information processing and decisions made by that person (9). Based on this, researchers state that overconfident managers have an impact on tax avoidance in several ways (10). First, overconfident managers limit the risk of their actions by determining confidence limits and overestimating the probability of the desired outcome. Overconfidence can lead CEOs to overestimate the efficiency of tax planning and underestimate the uncertainty of the realization of benefits from tax planning. Second, overconfident managers believe that they have more control over the outcome of their decisions and believe that they have more ability to choose and motivate for the best tax planning. Therefore, overconfidence can lead to suboptimal investment in taxes. In addition to that, a researcher also states that in the field of tax policy options, overconfident managers overestimate tax positions that will remain stable or will be approved (11). On the other hand, according to the results of another study (12), one of the gaps in the overconfidence literature of managers is the lack of analysis of the internal principles that moderate it, and studies related to corporate governance show one of these internal principles. The audit committee is the main governance mechanism of the company that prevents the misbehavior of the managers and reducing the interests of the shareholders, and in this regard, the estimated taxes of the company include the selection of accounting policies, the assumptions of data collection and the integrity of financial reports, which are under It is the control of audit committees (13). The audit committee, by inspecting and providing transparency and accountability, limits the capacity of self-obsessed managers to increase the risk of companies. On the other hand, researchers state that the existence of the audit committee and its characteristics reduce the tax avoidance of companies (14). Therefore, it seems that an effective audit committee has a moderating effect on the type of relationship between overconfident managers and their tax avoidance. Based on this, the aim of the current research is to investigate the relationship between managers' overconfidence and tax avoidance, and the moderating role of audit committee characteristics on this relationship has also been investigated. In the following, the theoretical foundations, the background of the research and the results of the assumptions are given.

Research Methodology

The method of the current research is analytical and correlational and practical in terms of purpose. In order to test the hypotheses, simple regression and multivariate regression models have been used. In order to collect the research data, the library method has been used in order to formulate theoretical topics and for data and financial information, the financial statements of the companies admitted to the stock exchange, as well as information banks have been used. Based on this, the financial statements of stock companies for a 6-year period from 2014 to 2019 have been examined. In this research, the statistical sample was selected by systematic elimination method. Based on this, taking into account the following criteria, 164 member companies of the stock exchange were selected as samples to investigate the hypotheses of the research:

- Companies must be admitted to the stock exchange before 2014 and be active in the stock exchange until the end of 2019.
- In terms of increasing the comparability of the financial year of the companies during the period of 2015 to 2020 financial year and their type of activity has not changed.
- In terms of the separate reporting structure that investment and financial intermediation companies (leasing, insurance, holdings, banks and financial institutions) have, they are removed from the sample.

- Their financial information should be available between 2019 and 2020.

After extracting the required information and aggregating the data in Excel, the research variables were calculated and the hypotheses of the research were tested using Eviews software. The hypotheses of the research using the regression model are taken from the research of Martínez-Ferrero et al. (2021).

In this study, tax avoidance and effective tax rate are research variables. Managers' pre-confidence is the independent variable of the research and the characteristics of the audit committee, audit committee size, financial expertise of audit committee members, audit committee independence, company size, financial performance, financial leverage, year and industry are the moderating variables.

Findings

Before testing the research hypotheses, the descriptive statistics of the research variables are presented in Table 1 as follows

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Table 1: Descriptive statistics related to research variables

Variable	Mean	Median	Max.	Min.	SD	Skewness	Curtosis	Obs.
Tax avoidance	0.094	0.099	0.322	-0.250	0.092	-0.138	2.779	984
Managers' overconfidence	0.343	0	1	0	0.475	-0.659	1.434	984
Characteristics of audit committee	0.832	0.921	1.55	0	0.248	-1.531	7.867	984
Overconfidence of managers* features of the audit committee	0.285	0	1.555	0	0.416	0.856	1.933	984
size of the company	14.744	14.520	20.770	1.200	1.571	0.850	4.255	984
Return on assets	0.135	0.105	0.683	-1.063	0.188	-0.345	6.082	984
Financial leverage	0.569	0.550	3.980	0.030	0.306	3.691	30.831	984
Industry	0.115	0.005	3.836	0.0002	0.526	6.305	43.432	984
Year	3.491	3	6	1	1.708	0.006	1.731	984

The central index shows the average equilibrium point and the center of gravity of the distribution and is a suitable index to show the centrality of the data. The average of the tax avoidance variable is equal to 0.09, which shows that the effective tax rate in the research sample companies is equal to 9% on average. The median as one of the central indicators shows the state of the society and specifies that half of the data are less than this value and the other half are more than this value. The mean of tax avoidance variable is equal to 0.099. In general, dispersion parameters are a measure to determine the degree of dispersion of data from each other or the degree of their dispersion compared to the average. One of the most important dispersion parameters is the standard deviation. The comparison of the value of this parameter for the variables shows the highest or the lowest amount of dispersion. Among the research variables, the highest dispersion is equal to 1.70 and is related to the year variable, the lowest dispersion is equal to 0.092 and is related to the tax avoidance variable.

Skewness is the amount of asymmetry of the curve. If the coefficient of skewness is zero, the society is completely symmetrical, and if the coefficient is positive, there will be a skew to the right, and if it is negative, there will be a skew to the left. The skewness of the tax avoidance variable is equal to -0.13, which indicates that it is skewed to the left. Among the research variables, the highest skewness is related to the industry variable and is equal to 6.30, and the lowest is related to the year variable and is equal to 0.006. The elongation of the Freon curve compared to the standard normal curve is called protrusion or elongation. Elongation around zero indicates that the abundance curve has a balanced and normal state in terms of elongation, if this value is positive, the curve is prominent and if it is negative, it is a wide curve. Managers' overconfidence variable with a value of 1.43 has the lowest elongation and the industry variable has the highest elongation. Also, all research variables have a positive strain.

At first, the normality of the dependent variable was investigated and the normality of the distribution of the tax avoidance variable was confirmed based on the probability of the Jarque-Bera statistic. Also, the absence of collinearity between the independent variables was investigated, for this purpose, multiple correlation and variance inflation statistics were used. Based on the obtained results, there was no co-linearity between the independent variables of the research. Another assumption of the regression model is the constancy of the error variance, which according to the results of the White and Jarque-Bera test, there was no heterogeneity of variance in the residuals of the research models, and ordinary least squares (OLS) regression was used to estimate the research models. became. Finally, before estimating the model, in order to ensure the results of the research and the non-fakeness of the relationships in the regression and the significance of the variables, the Mana test was performed and the unit root of the research variables was calculated in the models. The said test was performed using Levin, Lin and Chu test method. The results of all research variables were significant.

In order to choose the appropriate model to estimate the research hypotheses, F-Limer (Chow) test and Haussmann test were used. The results are presented in Table (2).

Table 2: The results of selecting the data model to estimate the research models

Model	F Limer		Haussmann	
	Statistics	**Sig.**	**Statistics**	**Sig.**
First model	5.63	0.000	32.09	0.000
Second model	5.7	0.000	24.5	0.0004
Third model	5.64	0.000	33.59	0.000

According to the presented results, it is suitable to estimate the research models of the combined data with the fixed effects method.

First hypothesis: There is a significant relationship between managers' overconfidence and corporate tax avoidance. The results of the test of the first research hypothesis are presented in table (3).

Table 3: Estimation of the first research model

Variable	Coefficient	SE	t-value	Sig.
y-intercept	-0.043	0.106	0.485	0.681
Managers' overconfidence	-0.013	0.006	-2.171	0.030
Size of company	0.007	0.006	1.164	0.244
Return on assets	0.098	0.025	3.897	0.000
Financial leverage	0.098	0.025	3.897	0.000
Industry	0.029	0.011	2.511	0.012
Year	-0.012	0.003	-3.491	0.000
R^2	0.596			
$R^2_{Adjusted}$	0.512			
F-value	7.116			
Sig.	0.000			
Durbin-Watson	1.696			

According to the results obtained from the estimation of the research model which can be seen in table (3), the coefficient of the independent variable of overconfidence of managers is equal to (-0.013) and the probability of this variable is less than 0.05, which indicates the negative and significant relationship of this variable with the dependent variable. (Regarding the inverse relationship between the effective tax rate and tax avoidance, the positive coefficient of the independent variable of managers' overconfidence indicates a positive relationship between managers' overconfidence and tax avoidance). According to the obtained coefficient, it can be concluded that there is a positive and significant relationship between managers' overconfidence and company's tax avoidance, so the first research hypothesis is confirmed. Also, among the control variables, the variables of return on assets and financial leverage have a positive and significant relationship with a significance level of less than 0.05, and the industry variable has a negative and significant relationship with the dependent variable. As can be seen in the table, the coefficient of determination of this model is approximately 0.59. This number shows that 59% of the changes in the dependent variable can be explained by the mentioned independent variables and since the Durbin-Watson statistic of this model is between 1.5 and 2.5 (1.69), it can be said that in This first-order autocorrelation model does not exist (confirming one of the regression assumptions). In addition, the probability of the F-statistic is less than 5%, and since the F-statistic shows the overall validity of the model, it can be said that this model is significant with a probability of 95% and has high reliability.

Second hypothesis: There is a significant relationship between the characteristics of the audit committee and the company's tax avoidance.

The results of the second hypothesis test can be seen in Table (4).

Table 4: Estimation of the second research model

Variable	Coefficient	SE	t-value	Sig.
y-intercept	-0.006	0.095	-0.070	0.943
Characteristics of audit committee	0.077	0.010	7.125	0.000
Size of company	0.001	0.006	0.207	0.835
Return on assets	0.080	0.022	3.552	0.000
Financial leverage	0.013	0.015	0.910	0.632
Industry	-0.010	0.005	-2.093	0.036
Year	-0.0001	0.002	-0.058	0.953
R^2	0.617			
$R^2_{Adjusted}$	0.538			
F-value	7.774			
Sig.	0.000			
Durbin-Watson	1.708			

According to the results obtained from the estimation of the research model which can be seen in table (4), the independent variable coefficient of audit committee characteristics is equal to (0.077) and the probability of this variable is less than 0.05, which indicates the significance of this variable. According to the obtained coefficient, it can be concluded that there is a positive and significant relationship between the characteristics of the audit committee and the tax avoidance of the company (according to the inverse relationship between the effective tax rate and tax avoidance, the positive coefficient of the independent variable of the characteristics of the committee The audit indicates a negative relationship between the characteristics of the audit committee and tax avoidance. According to the obtained coefficient, it can be concluded that there is a negative and significant relationship between the characteristics of the audit committee and tax avoidance of the company, so The second research hypothesis is confirmed. Also, among the control variables, asset return variables have a positive and significant relationship with a significance level of less than 0.05, and the industry variable has a negative and significant relationship with the dependent variable. As shown in the table (4) It can be seen that the coefficient of determination of this model is approximately 0.61. This number shows that 61% of the changes in the dependent variable can be explained by the mentioned independent variables and since the Durbin-Watson statistic of this model is between 1.5 and 2.5 (1.70), it can be said that in This first-order autocorrelation model does not exist (confirming one of the regression assumptions). In addition, the probability of the F-statistic is less than 5%, and since the F-statistic shows the overall validity of the model, it can be said that this model is significant with a probability of 95% and has high reliability.

The third hypothesis: the characteristics of the audit committee have a significant effect on the relationship between managers' overconfidence and the company's tax avoidance.

The results of the third hypothesis test can be seen in table (5).

Table 5: Model estimation of the third research model

Variable	Coefficient	SE	t-value	Sig.
y-intercept	-0.105	0.104	-1.007	0.314
Managers' overconfidence	0.003	0.017	0.185	0.852
Characteristics of audit committee	0.081	0.012	6.648	0.000
Overconfidence of managers* features of the audit committee	-0.017	0.019	-0.889	0.374
Size of company	0.008	0.007	-1.110	0.266
Return on assets	0.089	0.023	3.895	0.000
Financial leverage	0.020	0.015	1.303	0.192
Industry	-0.010	0.005	2.131	0.033
Year	-0.001	0.002	-0.545	0.585
R^2	0.619			
$R^2_{Adjusted}$	0.539			
F-value	7.744			
Sig.	0.000			
Durbin-Watson	1.692			

According to the results obtained from the estimation of the research model which can be seen in table (5), the independent variable coefficient of overconfidence of the managers* characteristics of the audit committee is equal to (-0.017) and the probability of this variable is greater than 0.05, which indicates the non-significance of this variable. According to the obtained coefficient, it can be concluded that the characteristics of the audit committee do not have a significant effect on the relationship between managers' overconfidence and company's tax avoidance. Therefore, the third hypothesis of the research is not confirmed. Also, among the control variables, asset yield variables have a positive and significant relationship with a significance level of less than 0.05, and the industry variable has a negative and significant relationship with the dependent variable. As shown in the table (5), It can be seen that the coefficient of determination of this model is approximately 0.61. This number shows that 61% of the changes in the dependent variable can be explained by the mentioned independent variables and since the Durbin-Watson statistic of this model is between 1.5 and 2.5 (1.69), it can be said that in This first-order autocorrelation model does not exist (confirming one of the regression assumptions). In addition, the probability of the F-statistic is less than 5%, and since the F-statistic shows the overall reliability of the model, it can be said that this model is significant with a probability of 95% and has high reliability.

Discussion

Previous research has confirmed the relationship between managers' overconfidence and tax avoidance. Researches (10, 11 and 13) showed that there is a significant relationship between managers' overconfidence and tax avoidance. Also, the research pointed out the relationship between the audit committee and tax avoidance and emphasized the impact of the audit committee on the relationship between managers' overconfidence and tax avoidance. Research findings (13) showed that there is a positive and significant relationship between managers' overconfidence and tax avoidance, and the audit committee has a negative and significant effect on this relationship. Another study (10) showed that there is no significant relationship between tax avoidance and managers' overconfidence. Researchers (14) showed in their research that the independence, expertise and size of the audit committee have a negative and significant relationship with tax avoidance. The findings from the first hypothesis of the research showed that there is a positive and significant relationship between managers' overconfidence and tax avoidance. According to these findings, it became clear that the personal characteristics of CEOs are considered effective in the company's tax planning and decisions, and overconfident managers due to overconfidence in their abilities and imaginations. They make their own decisions related to tax payment. The most confident managers, thinking that there is no possibility of discovering the measures taken by them to reduce taxes or the crimes committed by the tax authorities are insignificant, take tax avoidance procedures and invest the necessary financial resources. or secure their personal interests. The findings of this hypothesis are not consistent with the research of some researchers (10), but it is consistent with the findings of other researches (11 and 13). Also, the findings of the second hypothesis of the research showed that the characteristics of the audit committee have a negative and significant relationship with tax avoidance. These findings show that the audit committee acts as the main mechanism of corporate governance in the company, and by strengthening the characteristics of the audit committee, its effectiveness increases and its supervisory role also expands, leading to the adoption of favorable decisions. Among the decisions related to tax payment. On the other hand, effective audit committees, including the number of appropriate members, different and independent expertise, will increase the monitoring of the company's procedures and financial decisions and will also limit the opportunistic behavior of managers. Also, an effective audit committee prevents tax avoidance by increasing the independence of independent auditors and preventing their collusion with the management. These findings are consistent with the findings of previous studies (14). Regarding the third hypothesis and the impact of audit committee characteristics on the relationship between managers' overconfidence and tax avoidance, according to the research findings, audit committee characteristics do not have a significant effect on the relationship between managers' overconfidence and tax avoidance. These findings are not consistent with the findings of previous studies (13). These findings show that in companies admitted to the stock exchange, the audit committee has a greater influence on the performance of independent auditors, and through monitoring the performance and relationships between independent auditors and company managers, they can reduce tax avoidance measures. gives Based on this, it is suggested that according to the findings of the research, it is clear that strengthening the characteristics of the audit committee will reduce the tax avoidance of companies. Therefore, it is suggested to the companies admitted to the stock exchange to consider these characteristics in the selection and appointment of committee members and according to the charter of the audit committee, the maximum number of audit committee members and people with financial and accounting expertise and independent should be used.

Conclusion

According to the findings, it can be said that among the characteristics of the audit committee, there is no significant relationship between financial expertise and independence of the audit committee and tax avoidance, but there is a negative and significant relationship between the size of the audit firm and tax avoidance. Also, the characteristics of the audit committee do not have a significant effect on the relationship between managers' overconfidence and tax avoidance.

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