Relationship between corporate tax behavior and voluntary environmental disclosure

Mohammad Kian
Department of Accounting, UAE Branch, Islamic Azad University, Dubai, UAE.
kian_m2008@yahoo.com

Fraydoun Rahnamay Roodposhti
Department of Financial Management, Science and Research Branch, Islamic Azad University, Tehran, Iran.
Roodposhti.rahnama@gmail.com

Taghi Torabi
Department of Economy, Science and Research branch , Islamic Azad University, Tehran, Iran.
ttttorabi@gmail.com

Submit: 11/08/2021 Accept: 20/09/2021

ABSTRACT
Corporates' strategies among other components of social responsibility may enable them to meet at least part of the stakeholders' demands and generally guarantee adequate legitimacy. Current practices of industries and corporates are associated with adverse environmental impacts with regard to biodiversity, health, diseases, greenhouse gas emissions and …. Consideration of these matters by the media is a threat to legitimacy that has been addressed by industries in different ways. A considerable part of legitimization strategies lay emphasis on paying taxes to local communities and creation of jobs in rural areas as part of an attempt to contribute to social responsibility. In the present study, attempts are made to delineate the relationship between corporate tax behavior and environmental disclosure with and approach to perceived justice and organizational commitment of 373 corporates during 2011-2018. Tax aggressiveness and voluntary disclosure of environmental information were used as dependent and independent variables respectively. Multiple linear regression was used to test the research hypotheses. The results showed that there is a relationship between the rate of voluntary environmental disclosure and the Tax aggressiveness of companies listed on the Tehran Stock Exchange

Keywords:
Aggressive tax behavior, environmental disclosure, voluntary environmental disclosure, organizational justice and commitment

1. Introduction

An emerging debate among companies or stakeholders is whether the components of corporate social responsibility including environment, human relations, occupational health and safety, equal payment, diversity, social participation, human rights, business conduct and tax payment are among the trade indices (Dowling, 2014).

Companies need legitimacy from multiple stakeholder groups to survive (Aldrich & Ruef 2006; Clarkson, 1995). Stakeholder expectations may be incompatible both within and across elements of CSR (Devinney, 2009). Strategic trade-offs across elements of CSR may enable companies to meet at least some demands of stakeholder groups and thereby ensure sufficient legitimacy overall. Current practices of industries and companies are associated with negative environmental effects pertaining to biodiversity, health, disease, greenhouse gas emissions and more (Liu et al., 2014; Olaussen, 2018).

Negative media attention to these issues poses a legitimacy risk that has been addressed by the industry in several ways. An important part of legitimization strategies is to lay emphasis on tax payments to local communities as well as employment in rural areas as positive CSR contributions. Companies have been spreading these tax arguments over the years through various channels, including extensive television advertising. Hence, the strategy of compensating for environmental challenges by providing assistance to communities through taxation is widely recognized. Society, as an external stakeholder, requires companies to pay their fair share of taxes to fund the general budget for goods and welfare (Dowling, 2014), including critical infrastructure for business (Stonson and Verachua, 2015). Shareholders, on the other hand, can benefit from a reduction in aggressive tax behavior by paying taxes (Friedman, 1970; Hasseldin & Morris, 2013). Conflicting interests among stakeholders require strategic prioritisation: "Taxes are the result of a firm's strategy and decisions" (Huseynov & Klamm, 2012). Companies affect tax aggressive behaviors through choices concerning legal tax planning, ethical questionable tax avoidance and illegal tax evasion. Although it is not easy to strike a balance between the tax interests of shareholders and external stakeholders (incompatible expectations within a CSR element), it may still be possible to manage legitimacy risks by addressing other CSR areas that are placed at the center of attention of tax-dissatisfied stakeholders. Corporate tax behaviors regarding external stakeholders (for example government and local communities) arise mainly from tax-aggressive behaviors—for instance, firms may refuse to perform their societal obligation of paying a fair share of tax. Tax-aggressiveness and CTB and tax disclosures are very common. Moreover, tax avoidance and tax evasion cause governments to lose enormous amounts of their revenue (2012, Christensen & Murphy, 2004; Dowling, 2014; Preuss, 2010; Sikka, 2010; Ylönen & Laine, 2015). Companies' performance on other CSR elements, such as the environment, is also subject to strategic considerations (Adams & Whelan, 2009; Lindblom, 2010; Wilmshurst & Frost, 2000). What governments, local communities and environmental NGOs perceive as desirable or acceptable levels of environmental performance of corporate operations and products may deviate from the optimal level for shareholders' profitability objectives (Friedman, 1970). The societal awareness of environmental issues has improved over time. Hence, trade-offs to handle legitimacy risks associated with disclosure of environmental status and performance may occur.3 For example, low tax aggressiveness may positively affect society's perception of a company's citizenship behavior and bring into consideration the legitimacy risks concerning questionable environmental performance. By highlighting what they perceive as desirable/good performance on the other CSR element, Corporates may try to trade off legitimacy risks concerning what some important stakeholder groups perceive as bad CTB or environmental performance (Dowling, 2014). Hence, the degree to which such relationships between tax and environmental (or other CSR elements) performance exist is one of the main questions that may be raised in this cases. Both CTB (Hanlon & Heitzman, 2010) and CSR (reporting) have been subject of extensive studies (Fifka, 2013), but different relationships between tax behavior and environmental issues have not been specifically addressed so far. The present study is an attempt to investigate the relationship between CTB and voluntary environmental disclosure. The results of the present research can, thanks to the new research trends they have created, draw a lot of attention towards tax behavior and environmental disclosure of companies and attract the attention of a wide range of groups including various accounting standard formulation authorities, other legislative bodies such as the stock exchange and their supervisory bodies

2. Theoretical foundations and review of literature

The elements of social responsibility share many features: they take into account the citizenship behavior of the company and are either mandatory or voluntary. In the present study, it is argued that corporate strategies may differ depending on the mandatory and voluntary actions that are to be taken by them. Theoretically, this is consistent with new applications of the theory of legitimacy in social responsibility studies. Legitimacy is a multidimensional concept that separates regulatory legitimacy from other legitimacy dimensions for exactly this reason (Aldrich and Ruef, 2006). The scientific argument in the literature on corporate tax aggression and corporate responsibility is influenced by the debate over why and whether or not corporates should or should not be allowed to implement methods designed to alleviate their tax liabilities. The literature on the legal foundations of taxation mostly deal with the principles that should be used to address companies and how to distribute taxes fairly among an independent nation where there is a competitive inclination towards aggressive tax avoidance (Kabsaz, 2015; Christensen, 2011). Considering that laws or principles arising from principles of tax evasion, aggression and avoidance should be used, it is assumed that corporates that support corporate social responsibility endorse the ethical principles of social responsibility beyond compliance with law (Gribnau, 2015). Corporate tax behavior is regulated by law and therefore deals with the regulatory legitimacy risks as well as ethical, cognitive and practical risks. In contrast, environmental disclosure is potentially voluntary. Voluntary Environmental actions depend only on the moral, cognitive and pragmatic legitimacy risks. The absence of regulatory legitimacy risks indicates that the likelihood of opportunistic behavior is higher for voluntary than for mandatory disclosure. Although, reporting quality may vary from one company to another, environmental disclosure is often found to be incomplete and unrelated to the corporations' actual environmental performance, dominated by positive and lack of negative information and lack of quantitative, specific and verified information. Due to the lack of regulatory legitimacy risk, the relationship between CTB and voluntary environmental disclosure is likely to differ from the situation anticipated for mandatory disclosure. Empirical studies on the quality of CSR reporting strongly show that voluntary environmental disclosure is primarily a legitimation device and only to a lesser extent, an accountability mechanism (Boiral, 2013; Patten, 2005; Patten and Carmaton, 2003). The hypothesis development in this text considers disclosure only as a legitimation tool, the aspect that is currently perceived to be most relevant. Legitimacy theory predicts that companies legitimize their existence and actions by providing voluntary environmental information and demonstrating society's need for their services. Lindblom's (2010) four legitimation strategies show how and why corporates use voluntary environmental disclosure in different corporate tax behavior scenarios. Companies may choose to make disclosures to inform the stakeholders about it. There is no need to offset CTB legitimacy risks by improving legitimacy on other CSR elements through increased disclosures. On the contrary, a good corporate social responsibility on tax reduces the need for voluntary environmental disclosure to complement mandatory environmental disclosures and improve environmental legitimacy. The positive relationship between tax aggressiveness (TAG) and the degree of voluntary environmental disclosure is indicative of a trade-off between CSR elements. Corporates avoid using opportunistic communication concerning high TAG while engaging in positive voluntary disclosures on other CSR elements (Sikka, 2010; Ylönen & Laine, 2015). In short, legitimacy policy and Lindblom's strategies for voluntary disclosure serve as a legitimacy device. Loss off Legitimacy may occur for companies with both high and low TAG. This argument is strengthened by Lindblom (2010) recognition that companies can simultaneously apply several strategies on different issues. Thus, the likelihood of trade-off concerning voluntary disclosure strategies adopted by many companies at any given time may increase. Taking this into account, the following hypothesis can be formulated:

Hypothesis 1: There is a positive relationship between the TAG of corporates and the degree of voluntary environmental disclosure.

3. Experimental literature

Tax behavior has always been a controversial matter in accounting studies. In this section, some of the research conducted in this field will be reviewed:

Aghaei et al. (2015) investigated the relationship between mandatory and voluntary environmental disclosure and the tax performance of companies listed on the Tehran Stock Exchange. The research data were actually panel data derived from the regression model. The data were collected from 110 companies listed on the Tehran Stock Exchange during 2014-2018. The results showed that there is no sign of trade-off between tax evasion and environmental disclosure among companies listed on the Tehran Stock Exchange. However, the positive correlation between tax avoidance and voluntary disclosure showed that strategic trade-off occurs to ensure acceptable satisfaction of various stakeholders.

Rezaei Pitenoei et al. (2017) made attempts to investigate the relation between accounting comparability and corporate tax avoidance, and to examine the moderating effect (substituting or replacing) of information environment on this relation, using structural equation modeling approach.. In order to measure tax avoidance, two proxies of book-tax difference and effective tax rate were used and finally Saffarinia and Sharif (2010) questionnaire was used to measure social trust. The questionnaire was sent to 116 companies, and finally 82 companies filled out the questionnaires and were included in the statistical analysis. After ensuring an acceptable fitness of the measurement and structural models, the research findings showed that social trust reduces corporate tax avoidance. In addition, according to the prediction made by the substituting theory, corporate governance weakens the negative relationship between social trust and corporate tax avoidance.

Feizi et al. (2019) investigated the relationship between voluntary non-financial disclosure and the sustainability of companies and the impact of this relationship on audit quality. The population of this study consisted of all companies listed on the Tehran Stock Exchange during 2009 - 2018 and the sample was selected through systematic elimination from the statistical population. 112 companies were selected as the statistical sample of this study. It is worth mentioning that multivariate regression models developed and designed in the present study were used to test the research hypotheses. The results showed that firm strength enhances the direct relationship between voluntary disclosure of non-financial information and its dimensions with firm sustainability performance.

Hasas Yeganeh et al. (2015) investigated the effect of selected dimensions of corporate social responsibility on tax avoidance and evasion. Questionnaires, documents, records and financial information of companies listed on the Tehran Stock Exchange were used for data collection purposes. The statistical sample consisted of 164 companies listed on the stock exchange during 2004-2016. The results showed that corporate social responsibility can significantly affect tax avoidance and evasion.

Khajavi et al. (2015) investigated the relationship between corporate governance mechanisms and voluntary environmental disclosure in the chemical and pharmaceutical industries and showed that there is no diversity in the board size of Iranian companies and presence of independent managers in the board do not lead to increase of environmental voluntary disclosure level. The separation roles of CEO with chairman of the board director lead to increase of controlling in Iranian companies and environmental voluntary disclosure.

Moradi et al. (2016) investigated the relationship between tax evasion and the stock price crash risk using the data from 70 Iranian stock companies during 2008 – 2011. The positive relationship between tax evasion and stock price crash risk and failure to confirm the relationship between institutional ownership and non-responsible managers can negatively affect tax evasion and the risk of stock price falls in the future.

Shafiei et al. (2016) investigated the relationship between changes in the level of social and environmental disclosures and the profitability indicators. This quasi-experimental study was performed using data collected from financial statements during 2001-2014. To analyze data multiple regression model, panel data and fixed effect method were used. KLD index was used to measure the social and environmental responsibility of companies. The hypothesis testing results showed that there is a significant relation among social and environmental responsibility disclosure and aspects of corporate financial performance, the ratio of operating income to sell ratio and the rate of return on used capital and rate of return on net wealth used.

Santos et al. (2020) evaluated the voluntary social and environmental disclosure of Brazilian agricultural companies and tested its determinants. The research hypotheses were tested using stakeholder theory, legitimacy theory, and the results of social and environmental disclosure. Confirmatory factor analysis was applied on a sample of 150 large agricultural companies in Brazil. The results showed that the disclosure measures taken by agricultural companies vary from one sector to another and internationalization, media exposure and pollution are important factors that can contribute to voluntary social and environmental disclosure.

Fallan and Fallan (2019) investigated the relationship between corporate tax behavior and environmental disclosure. Tax finances public goods and reduces investor wealth. Corporate strategies may balance such incompatible stakeholder interests through trade-offs across CSR elements. In this empirical study of Norwegian companies, there are no indications of trade-offs between corporate tax aggressiveness (TAG) and mandatory disclosure, in line with stick-to-the-rules/compliant behavior for both. However, the positive relationship between TAG and voluntary disclosure indicates that strategic trade-offs exist and ensure an acceptable level of legitimacy from different stakeholders overall. Hence, corporate strategies differ for mandatory and voluntary actions, in line with a multidimensional legitimacy risk and legitimation strategy framework.

Rezaei & Tuo (2017) investigated the voluntary disclosure of non-financial information and its relationship with sustainability performance of corporates. The results showed information contents and managerial motivations play an important role in assessing the antecedents and consequences of non-financial disclosure. The results also showed that earnings quality is a more pronounced factor in influencing forward-looking non-financial disclosures.

In a study entitled "voluntary environmental disclosure quality and firm value" Plumlee et al. (2015) showed that the relationship between the voluntary environmental disclosure quality and firm value can be explored through the relationship between the components of firm value (expected future cash flows and cost of equity) and voluntary environmental disclosure quality. The results also showed that voluntary environmental quality is associated with firm value through both the cash flow and the cost of equity components.

Bhattacharyya (2014) investigated factors related to environmental and social reporting in Australian companies. The results showed the extent of SER by Australian Companies was fairly low and the extent of total disclosure was significantly higher for large organizations in the Industrial Transport industry. Companies with negative return on total assets reported significantly higher social information. The extent of total disclosure was unrelated to an organization's age and external auditor size

Chen et al. (2014) found that tax avoidance increases agency costs and decreases firm value. They also found that information transparency interacts with corporate tax avoidance, moderating the relation between tax avoidance and firm value. Investors in China react negatively to corporate tax avoidance behavior, but this negative reaction could be mitigated by information transparency

Badertscher et al. (2013) investigated tax avoidance and corporate governance and showed that separation of ownership and control can influence the tax practices of private companies with different ownership structures. They found that firms with greater concentrations of ownership and control, and thus more risk averse managers, avoid less income tax than firms with less concentrated ownership and control.

4. Research methodology and model

The present experimental research falls within the category of confirmatory accounting studies. In the present research, financial information are collected from financial statements and notes of companies as well as the CDs of Tehran Stock Exchange. The research method is deductive and inductive, that is, the theoretical foundations and literature have been deductively extracted through library studies, articles and websites while the information and data needed to test hypotheses have been collected in an inductive manner. Since the results of the present study can be used in the decision-making process, it can be argued that the research falls within the category of applied studies in terms of objectives. In the present study attempts are made to investigate the relationship between aggressive tax behavior of firms and the rate of voluntary environmental disclosure in companies listed on the Tehran Stock Exchange. In this study, the aggressive tax behavior of companies is recognized as the influenced or dependent variable and voluntary environmental disclosure is recognized as an influential or independent variable. The information about the variables is collected through audited financial statements and corporate board reports. Descriptive statistics, multivariate regression and other relevant tests were used to test the research hypotheses.

The population of the study consisted of the companies listed on the Tehran Stock Exchange in the period 2011-2018. In the present study, a systematic elimination method was used for sampling. In this process, first all companies listed on the Tehran Stock Exchange were selected, and finally companies with the following conditions were selected from among them:

The fiscal year of the companies during the whole research period should end by March and companies should be listed on the Tehran Stock Exchange before 2011. Also, companies should not undergo any change regarding the fiscal year during the research period and should not be part of financial and investment companies such as banks and insurance companies. Finally, the required financial information should be accessible and the companies should not undergo any blackout period during the study. Finally, according to the above-mentioned conditions, 373 companies were selected as the statistical sample.

Research indicators proposed by Fallan and Fallan, (2019) were used to investigate the relationship between the TAG and the voluntary environmental disclosure of companies.

1) $TAGj = \alpha_0 + \beta_1 VOLDISC + \beta_2 SIZE + \beta_3 DEBT + \beta_4 ROE + \beta_5 TENURE + \beta_6 BOARD + \beta_7 GROWTH + \varepsilon_i$

Dependent variable: is tax aggressiveness which is obtained from the following equation:

Tax Aggi, t = BIi, t - [(CFTEi, t + CFORi, t) / STRi, t] - (DTEi, t / STRi, t)

BIi, t: pre-tax income for company i in year t;

CFTEi, t: current federal tax expense for company i in year t;

CFORi, t: cost of foreign tax for company i in year t;

STRi, t: systematic tax rate in year t;

DTEi, t: deferred tax expense for company i in year t;

Independent variable: Voluntary environmental disclosure is the independent variable in the present study. This variable is operationalized based on content analysis. Content analysis provides a systematic numerical benchmark that can help compare corporate disclosures through quantitative analysis. The meaning of each relevant sentence in the company report is classified into predefined and exclusive categories. Dummy variable which is denoted by 1 if reported and otherwise zero. Content categories are as follows:

1) Environmental goals 2) Environmental authorities 3) Environmental events 4) Environmental organization 5) Environmental audits 6) Environmental disclosure audits 7) Environmental investments 8) Environmental expenses 9) Environmental debts 10) Definition of environmental concepts 11) Principles of accounting (reporting) 12) Non-financial non-economic information

In the present study, relevant literature have been used to select control variables. These variables are as follows:

Company size: is the natural log of total assets.

Financial leverage: **total** amount of **debt** relative to **assets** owned by a company

Return on equity: **net income** divided by shareholders' **equity**

CEO tenure: The number of years the CEO has been in charge.

Percentage of board ownership: The percentage of shares owned by board members and their affiliates, such as spouses, children, and companies affiliated with the board member or relatives.

Corporate growth opportunities: is calculated by the natural log of stock market value, divided by the book value of the stock.

6. Findings

Calculation of descriptive indicators is the first step in any statistical analysis and data analysis. Therefore, to enter the data analysis stage, the descriptive statistics including the central measures of tendency, measure of variability and Skewness, as well as the Jarque-Bera test, which examines the normal distribution of residuals, are calculated. The results are presented in Table (1).

The results of descriptive statistics are presented in table 1. For example, the mean value of voluntary disclosure is 4.481, in other words, companies have reported approximately 5 out of 12 cases of voluntary disclosure and most of the data related to this variable pivot around this point. The median of the voluntary disclosure is 5, which indicates that half of the data are smaller than 5 and the other half are greater than 5. The asymmetry of the frequency (skewness) of this variable is 0.299, which means that this variable is skewed to the right and deviates from the center of symmetry. The results of **Jarque-Bera** test which is meant to determine normality of the research variables show that, since the significance of all variables is less than 0.05, the null hypothesis (normal distribution of data) is rejected, in other words, the data distribution is not normal. In this study, the theorem limit central is used to check the normality of the model variables, and according to this theorem, at least a sample of 30 is needed to ensure that the statistical distribution is normal (Adel Azar and Momeni, 2011). Therefore, since the sample in the present study includes 373 companies for 8 years, the research variables would enjoy a roughly normal distribution.

The classic presuppositions or assumptions of the regression model are lack of auto-correlation, homoscedascity, and ***absence*** of ***multicollinearity***. In the present study, ***Breusch–Godfrey*** test is used to confirm the accuracy of results and check the lack of autocorrelation in the data. In this test, absence of autocorrelation would be considered as the null hypothesis and the opposite hypothesis will be regarded as the auto-correlation hypothesis.

Table (2) shows the autocorrelation test results. The significance level (0.894) is greater than 0.05, thus the null hypothesis (lack of autocorrelation) is confirmed.

Another hypothesis taken into account in a classical regression model is known as homoscedascity ARCH test is used to check the homoscedascity in the data. In this test, the null hypothesis is homoscedascity and the opposite hypothesis is considered to be heteroskedasticity.

Table (1): Descriptive statistics of research variables

Variable	Mean	Median	Max	Min	Skewness	Jarque-Bera	Sig.
TAG	683919.7	25455	80460236	-11389164	9.618	2367207	0.000
Voluntary disclosure	4.481	5	9	1	0.299	133.68	0.000
Return on equity	1.439	0.215	1780.73	-510.53	31.26	2.13^{E+08}	0.000
Firm size	14.083	13.941	19.89	9.254	0.452	107.07	0.000
CEO tenure	2.723	3	6	1	0.361	175.28	0.000
Percentage of board ownership	36.114	33.06	96.59	12.529	1.301	1567.36	0.000
Financial leverage	0.588	0.620	0.868	0.0053	-0.918	447.59	0.000
Growth opportunities	15.251	15.208	31.23	6.637	0.565	14992.73	0.000

Table (2): Breusch–Godfrey autocorrelation test

Test result	Sig.	F	model
H. is confirmed	٠,٨٩٤	٠,٢١١	The first model

Table (3):ARCH test of Heteroskedasticity

Test result	Sig.	F	model
H. is confirmed	٠,٥٧٤	٠,٦٥٢	The first model

Table (3) shows the homoscedascity test results. Since the significance level obtained for the research model is greater than 0.05, the null hypothesis is confirmed and we have homoscedascity in the research model.

Absence of multicollinearity is another hypothesis in the classical regression model. If the model is associated with multicollinearity, it will not be practically possible to estimate it. Variance Inflation (VIF) is used to check Absence of multicollinearity in the data. If the test result is greater than 2, multicollinearity is greate.

Table (4) shows the results of the variance inflation factor applied on the research variables. Since the multicollinearity values obtained for the independent variables is less than 2, we have Absence of multicollinearity between the independent variables, therefore, we can apply the Multiple linear regression (MLR) test.

Once ensuring that the classical assumptions hold true, we need to account for the relationship between TAG of the company and the level of voluntary environmental disclosure in companies listed on the Tehran Stock Exchange. Once the model is delineated and the best method is selected, the estimation results for the selected companies would be as follows:

Table (4): multicollinearity test

variable	VIF
Voluntary disclosure	1.003092
Percentage of board ownership	1.005627
Financial leverage	1.005952
Growth opportunities	1.007594
Return on equity	1.004323
Firm size	1.004329
CEO Tenure	1.013360

Table (5): model testing results

Dependent variable: mandatory environmental disclosure			
sig	**t statistic**	**ratio**	**variable**
0.0000	984.2298	18.06454	constant
0.0000	-4.587637	-0.011281	Voluntary disclosure
0.2618	-1.122459	-0.009461	percentage of board ownership
0.3152	-1.004555	-0.005175	Financial leverage
0.0000	4.540023	0.002096	Growth opportunities
0.0000	4.219279	5.50^{E-05}	Return on equity
0.0000	7.934292	0.008646	Firm size
0.8859	-0.143536	-0.000375	CEO tenure
0.479	Modified coefficient of determination	0.545	Coefficient of determination
2.087	Durbin-Watson	8.260	F-statistic
		0.000	Significance level (F)

The numerical value of the modified coefficient of determination shows what percentage of the changes in the dependent variable can be accounted for by the independent variable. In the present model, the numerical value of this coefficient is 0.479. That is, 47.9% of the changes in the variable of TAG can be accounted for by independent and control variables. Durin-Watson's statistic value is 2.087 and since the value is within the 1.5 - 2.5 range, the hypothesis of absence of multicollinearity between errors is not rejected and simple and multiple regression test can be applied. On the other hand, the estimated probability of F statistic is 0.000 (smaller than 0.05.) therefore, the null hypothesis is rejected, indicating that not all coefficients of regression could be zero at the same time. Therefore, we can argue that there is a significant correlation between all independent variables and the dependent variable at the same time, and therefore the significance of the whole regression can be confirmed. The results also show that the independent and control variables are able to account for TAG of the company. The regression equation is as follows:

TAG_j = 18.064 -0.0112 VOLDISC + 0.0086 SIZE + 5.50^{E-05} ROE +0.002 GROWTH + ε_i

According to Table (5), the hypotheses testing results show that growth opportunities with t-statistics (4.540) and significance (0.000), returns on equity (4.219) with significance (0.000), firm size (7.934) with significance (0.000), all have error level below 5%, and are therefore significant and positive. In addition, the percentage of board ownership according to t-statistic (-0.1122) and significance (0.261), financial leverage (-1,004) with significance (0.351), CEO tenure (-0.143) with significance (0.885) are greater than the error level of 5% and are therefore considered to be insignificant. Also, since the significance of the independent variable (voluntary environmental disclosure) with t-statistic (-4.587) and significance (0.000) is less than 5%, there is no reason to confirm the null hypothesis and the opposite hypothesis (H1) is therefore confirmed. Therefore, it can be argued that there is a correlation between TAG and voluntary environmental disclosure of companies listed on the Tehran Stock Exchang

6. Discussion and conclusion

Voluntary disclosure is a mechanism that is externally controlled and is intended to alleviate problems between member shareholders (holders of final information) and non-members by providing information on financial and non-financial results. Theoretical justification of voluntary disclosure is based on specific assumptions, and disclosure is used as a tool to reduce information asymmetry between managers and investors. The obtained results are within the scope of legitimacy and have been reported based on environmental and social disclosure studies. Voluntary disclosure can be used as a control mechanism to restrain the CEO's self-centered decisions and utilitarian behavior. CEOs who are also a member of the board of directors, usually tend to provide a lower level of voluntary disclosure because they believes that tax mechanisms can affect the information disclosed by the company to its shareholders and reduce the likelihood of incomplete disclosure or disclosure of invalid information.

In the present study, the relationship between TAG and voluntary environmental disclosure of companies listed on the Tehran Stock Exchange was investigated. The hypothesis testing results show that there is a negative correlation between the rate of voluntary environmental disclosure and TAG. Thus, it can be concluded that with any increase in voluntary environmental disclosure, TAG of companies also improves, in other words the more companies comply with the principles and indicators of voluntary environmental disclosure, we can expect to see a significant decrease in TAG in the long run. Although, Improvement of status quo and protection of the environment, may incur costs, the benefits of complying with these indicators outweigh its costs in the long run and this will help companies improve their performance, improve productivity and gain a competitive advantage. Companies with a high degree of TAG tend to have a high degree of voluntary environmental disclosure. For example, a large portion of voluntary positive environmental disclosures can be used to shift focus from inappropriate tax payments or TAGs with high legitimacy because in the financing process, it is necessary to effectively deal with environmental challenges. It has also been proved that the motivation for voluntary environmental disclosure is often strategic in nature: firms mostly use this tool as a legal tool rather than a response mechanism. In contrast, a positive relationship also suggests that a low degree of TAG (i.e., tax compliance) is associated with a high degree of voluntary disclosure. The hypothesis testing results are found to be different from, yet consistent with the results of Fallan and Fallan (2019), Plumlee et al. (2015), Hasas Yeganeh et al. (2018) and Khajavi et al. (2018).

The results of the present study can be help investors, financers and other stakeholders in the process of reviewing environmental and tax performance reports. Consideration of these reports can reduce stock liquidity and capital costs and improve earnings quality. By reducing information asymmetries, these reports can create advantages for investors and managers. Currently, environmental reporting at the national and international levels is not considered legally mandatory, and companies disclose some information voluntarily. On the other hand, the results of research on the mandatory environmental

disclosure by companies show that the adoption of mandatory disclosure rules and regulations will increase social responsibility of companies. According to the results, it is suggested that authorities provide the necessary incentives in order to encourage companies to participate more actively in environmental disclosure. Similarly, legal requirements for non-financial reporting of companies should be met so that companies can enjoy the benefits of sustainable performance. Companies should also be provided with the necessary training on disclosure procedures and adequacy of information disclosure to increase their efficiency.
management, Publications of the Organization for the Study and Compilation of Humanities Books, niversity of Tehran.

References

1) Sir. Mohammad Ali, Rezazadeh. javad ، behrooz. Alan, (1399). Investigating the Relationship between Environmental Disclosure and Tax Behaviors of Companies Listed on the Tehran Stock Exchange, Quarterly Journal of New Applied Studies in Management, Economics and Accounting, No. 10, Volume 2, pp. 50-70.
2) Hasas Yeganeh, Yahya, Bolo, Qasem, Rezaei, Shahrooz. (1398). A model for the effect of selected dimensions of corporate social responsibility on tax avoidance and evasion. Financial Accounting Research, Volume 11, Number 4, pp. 111-130.
3) khajavi .Shokroollah.hossein nia. Somayeh, Nasiri Tahereh, (1397), The Relationship between Corporate Governance Mechanisms and Voluntary Disclosure of Environmental Information (Case Study of Chemical and Materials and Pharmaceutical Industries Companies), Financial Accounting and Auditing Research, Volume 10, Number 40, pp. 1-20 .
4) Rezaei Pite Noei, Yaser, Safari Graili, Mehdi, Norouzi, Mohammad. (1398). Modeling the moderating role of corporate governance on the relationship between social trust and tax avoidance. Empirical Accounting Research, Volume, Number 4, pp. 221-246.
5) Shafiee, Hossein, Khodamipour, Ahmad, Dastgir, Mohsen. (1395). Investigating the Relationship between Changes in the Level of Disclosure of Social and Environmental Issues with Profitability Indicators Using KLD Index, Financial Accounting Knowledge, Volume 3, Number 4, pp. 43-64.
6) Faizi Mehdi, Pour-Aghajan Sarhamami Abbas Ali, Mousavi Seyed Hossein Generation (1398), The Impact of Voluntary Disclosure of Non-Financial Information and Sustainability Performance on Improving Audit Quality. Auditing knowledge. No. 19, Volume 77, pp. 190-220.
7) · Moradi, Mehdi, Bagherpour Valashani, Mohammad Ali, Rostami, Amin. (1395). The relationship between tax evasion and the risk of future stock price falls in companies listed on the Tehran Stock Exchange. Investment Knowledge, Volume 5, Number 17, pp. 127-146. • Adams, C. A., & Whelan, G. (2009). Conseptualising future change in corporate sustainability reporting. Accounting Auditing & Accountability Journal, 22(1), 118–143.
8) Aldrich, H., & Ruef, M. (2006). Organizations evolving (2nd ed.). London: Sage Publications.
9) Badertscher, B. A., Katz, S. P., & Rego, S. O. (2013). "The separation of ownership and control and corporate tax avoidance".Journal of Accounting and Economics, 56(2), 228-250.
10) Bhattacharyya, A. (2014). Factors Associated with the Social and Environmental eporting of Australian Companies. Australasian Accounting, Business and Finance Journal, vol8/iss13/, pp 2550-.
11) Boiral, O. (2013). Sustainability reports as simulacra? A counter-account of A and A+ GRI reports. Accounting Auditing & Accountability Journal, 26(7), 1036–1071.
12) Clarkson, M. B. E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. The Academy of Management Review, 20(1), 92–117.
13) Devinney, T. M. (2009). Is the social resposible corporation a myth? The good, the bad, and the ugly of corporate social responsibility. The Academy of Management Perspectives, 23(2), 44–56.
14) Dowling, G. (2014). The Curious Case of Corporate Tax Avoidance: Is it Socially Irresponsible? Journal of Business Ethics, 124, 173–184.
15) Fallana. E, Fallan. L.(2019). Corporate tax behaviour and environmental disclosure: Strategic

trade-offs across elements of CSR? Scandinavian Journal of Management, https://doi.org/10.1016/j.scaman.2019.02.001
16) Fifka, M. S. (2013). Corporate responsibility reporting and its determinants in comparative perspective - a review of the empirical literature and a meta-analysis. Business Strategy and the Environment, 22, 1–35.
17) Friedman, M. (1970). The social responsibility of business is to increase its profits. New York Times32 13. September 1970.
18) Hanlon, M., & Heitzman, S. (2010). A review of tax research. Journal of Accounting and Economics, 50, 127–178.
19) Hasseldine, J., & Morris, G. (2013). Corporate social responsibility and tax avoidance: A comment and reflection. Accounting Forum, 37, 1–14.
20) Huseynov, F., & Klamm, B. K. (2012). Tax avoidance, tax management and corporate social responsibility. Journal of Corporate Finance, 18, 804–827.
21) Lindblom, C. K. (2010). The implications of organizational legitimacy for corporate social performance and disclosure. In R. Gray, J. Bebbington, & S. Gray (Eds.). Social and environmental accountingLondon: SAGE 2, 51-63.
22) Liu, Y., Olaussen, J. O., & Skonhoft, A. (2014). Fishy Fish? The economic impacts of escaped farmed salmon. Aquaculture Economics & Management, 18, 273–302.
23) Olaussen, J. O. (2018). Environmental problems and regulation in the aquaculture industry. Insights from Norway. Marine Policy, 98, 158–163.
24) Patten, D. M. (2005). The accuracy of financial report projections of future environmental capital expenditures: A research note. Accounting Organizations and Society, 30(5), 457–468.
25) Patten, D. M., & Crampton, W. (2003). Legitimacy and the internet: An examination of corporate web page environmental disclosures. Advances in Environmental Accounting and Management, 2, 31–57.
26) Preuss, L. (2012). Responsibility in Paradise? The adoption of CSR tools by companies domiciled in tax havens. Journal of Business Ethics, 110, 1–14.
27) Plumlee, M., D. Brown., and S. Marshall. (2015). The Impact of Voluntary Environmental Disclosure Quality on Firm Value. http://ssrn.com. pp. 1-64.
28) Rezaee, Z., Tuo, L. (2019).Are the Quantity and Quality of Sustainability Disclosures Associated with the Innate and Discretionary Earnings Quality?. J Bus Ethics 155, 763–786 (2019). https://doi.org/10.1007/s10551-017-3546-y.
29) Santos, J.A.D., Moura-Leite, R., Pereira, M.W.G. and Pagán, M. (2020), "Social and environmental disclosure of the largest companies in Brazil's agribusiness sector", Social Responsibility Journal, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/SRJ-01-2019-0009.
30) Sikka, P. (2010). Smoke and mirrors: Corporate social responsibility and tax avoidance. Accounting Forum, 34, 153–168.
31) Stephenson, D., & Vracheva, V. (2015). Corporate social responsibility and tax avoidance: A literature review and directions for future research. http://ssrn.com/abstract=2756640.
32) Wilmshurst, T. D., & Frost, G. R. (2000). Corporate environmental reporting: A test of legitimacy theory. Accounting Auditing & Accountability Journal, 13(1), 10–26.
33) Ylonen, M., & Laine, M. (2015). For logistical reasons only? A case study of tax planning and corporate social responsibility reporting. Critical Perspectives on Accounting, 33,5–23.