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FINANCIAL ECONOMICS | LETTER

Audit committee characteristics and tax avoidance: Evidence from an emerging economy

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Abstract: This study aims to examine the impact of the characteristics of the audit committee on tax avoidance in Vietnam. The article uses data of non-financial firms listed on the Ho Chi Minh City and Ha Noi Stock Exchange over the period 2010–2019. By using the FEM and SGMM estimation for panel data, the empirical results show how the characteristics of the audit committee affect tax avoidance differently. Specifically, we find that the size of the audit committee has a positive correlation to tax avoidance, while the proportion of female members, financial and accounting experts of the audit committee can constrain tax avoidance behaviors. Our finding provides some important implications for listed firms to enhance the role of the audit committee in constraining tax avoidance behavior.

Subjects: Public Finance; Corporate Governance; Corporate Social Responsibility & Business Ethics

Keywords: audit committee size; audit committee independence; gender; financial experts; tax avoidance
JEL Codes: G32; H25; H26

1. Introduction

If tax evasion is an illegal act, tax avoidance, which is defined as legal methods to minimize the amount of income tax owed by an individual or a business, is considered a legal activity. As a for-profit entity, maximizing shareholder's wealth is one of the managers' key criteria. Therefore, when facing the goals of business performance as well as the need for capital, tax avoidance is an indispensable way in the management strategy, because from the perspective of businesses, tax is an expense. Large fees with mandatory character are managed by the legal network. For that reason, tax avoidance activities are becoming more and more popular with increasing sophistication and

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PUBLIC INTEREST STATEMENT

Tax compliance has a significant impact on the value of a business. Agency theory has helped to explain that managers tend to avoid taxes in order to increase the value of the firm and also for their self-interest. Tax avoidance behavior is significantly influenced by the characteristics of the audit committee. However, these characteristics have also affected tax avoidance behavior differently in different countries because of different institutional and cultural factors. Therefore, this article will contribute to providing empirical evidence on this issue in a developing economy as well as complement the academic literature on the relationship between agency issues and tax avoidance.

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complexity in companies. Based on agency theory, many studies show that tax avoidance is associated with corporate governance because managers always have incentives to minimize tax costs and help enterprises' value increase. Plesko (2002) shows that tax accounting disparity increases when managers seek to increase accounting profit but not taxable profit in order to minimize tax costs. This phenomenon is said to be the manager's implementation of the tax planning strategy. In addition, managers of listed companies always have an incentive to minimize income tax costs but at the same time still want to show effective business results through increased profit after tax and make it stable over time for their own personal gain. These activities increase the firm's compliance risk and affect the state budget. It becomes more important in emerging countries when the state budget is critically limited and tax avoidance activities become more and more sophisticated and complex.

Regarding tax avoidance activities, economists believe that the corporate governance mechanism generally contributes to solving the agency problem and propose different governance mechanisms to build an appropriate one for firms. As such, governance mechanisms often focus on the controlling role of management (Fama, 1980; Fama & Jensen, 1983), the ownership structure (Jensen & Meckling, 1976; Nguyen, 2020), the labor market, and the board of directors (Grossman & Hart, 1980; Hart, 1983). Many studies on corporate governance have documented the effectiveness of firms controlled by good managers (Gillan, 2006; Shleifer & Vishny, 1997). Given the importance of the firm's control mechanism, many experts and researchers appreciate the role of the supervisory mechanism in corporate governance in ensuring the responsibility of managers (Pham et al, 2021 Dang and Nguyen, 2021a). Most national laws require listed companies to have an independent audit and audit committee. Not only are they important factors in the statutory governance structure, but they also reflect the importance of the audit committee in the important functions of the corporate governance mechanism (Nguyen, 2022). The main function of the audit committee is to ensure the quality of financial statements and control systems (Collier, 2006; Oussii & Taktak, 2018). McMullen (1996) also argues that the presence of an audit committee makes financial statements more reliable. These studies demonstrate that a high quality audit committee combined with an independent auditor effectively fulfills their primary task of overseeing the financial reporting process. The literature agrees that the audit committee is the "apex" of internal control and has an important role in controlling the system (Ashfaq & Rui, 2019; Lisic et al., 2019).

In addition, corporate finance researchers often view tax liability only as market imperfections that affect capital structure and dividend policy, while public finance researchers have also not incorporated the possibility of the problem that is represented in their previous analyses. In developing countries, tax codes are complex and make it easy for firms to get tax evasion (Khlif & Amara, 2019). Tax avoidance is also found important in developing countries with more small firms. Dang et al. (2021) find that tax avoidance negatively relates to firm size in emerging countries. Therefore, firms in emerging countries find it more and more important to find appropriate corporate governance to oversee tax avoidance in developing countries like Vietnam. However, although internal control as well as audit committee may have an important role in oversight tax avoidance, there are fewer studies investigating the relationship between audit committee structure and tax avoidance. Tjondro and Olivia (2018) find that the audit committee has relation to the trade-off between tax avoidance and cost of debt. Hsu et al. (2018) provide evidence that financial experts on the audit committee oversee the corporate tax planning process according to the firm's business strategy. Regarding the role of audit committee in corporate governance, many studies find that audit committee can enhance financial reporting quality (Collier, 2006; Oussii & Taktak, 2018; Xie et al., 2003), constrain bank risk and maintain stability (Nguyen, 2021a; Q. Nguyen & Dang, 2020), and enhance firm performance (Al Farooque et al., 2019). However, there are few studies that investigate the role of audit committee in constraining tax avoidance. Based on agency theory, this study extends the literature by investigating the

impact of the number of auditing committee characteristics on tax avoidance in an emerging economy such as Vietnam. Our study provides some important implications for firm's shareholder tax department and regulators. Firm's shareholders can restructure audit committee to enhance its effectiveness for controlling tax avoidance purposes. Tax departments in emerging countries can focus to oversee firms with low effectiveness because there may be potential tax avoidance activities and regulators can develop an appropriate guideline for firms to restructure audit committees and reduce tax compliance risk.

The remainder of the paper is structured as follows: Section 2 presents a critical review of the academic literature on audit committee structure and tax avoidance, leading to the hypothesis development. Section 3 describes the data and methodology to test our hypotheses. Section 4 provides the empirical results. Finally, Section 5 concludes the paper.

2. Literature review and hypothesis development

When a company decides whether to implement tax avoidance, it must consider many issues related to the benefits received and the costs incurred in doing so. And when implementing tax avoidance behavior, the manager considers the benefits achieved, which include the benefits that the manager receives (rewards, promotions) versus the costs that may arise (auditing costs, fines, reputational damage). Thus, the tax avoidance behavior depends mainly on the representatives (i.e. managers) as well as the control system to oversee the manager's decision (i.e. internal control). Forker (1992) argues that the existence of an audit committee can improve the internal control system and considers it as an effective monitoring device to improve the quality of information disclosure. Beasley and Salterio (2001) also argue that the board of directors and the audit committee are important internal monitoring mechanisms. Nguyen (2021a, 2021b) argue that the effectiveness of the audit committee depends on some characteristics of the audit committee, including having a member who is an expert in finance and accounting, the meeting frequency of audit committee, the percentage of independent members, gender and size of the audit committee.

Furthermore, in order to follow the principles of appropriate corporate governance, firms are required to have an audit committee implementing the principles of responsibility and accountability. An audit committee is in charge of controlling the process of financial reporting and internal controller (Annisa & Kurniasih, 2012). Board of directors are obliged to develop an audit committee consisting of at least three members appointed or dismissed by the board of commissioners, and they are responsible to the board of commissioners as well . However, the large audit committee may not enhance its effectiveness. Directors in large boards may also face greater difficulties in expressing their opinions in the limited time available during board meetings (Lipton & Lorsch, 1992). Nguyen (2021a) shows that audit committee size increases bank risk due to low effectiveness. Based on these arguments, we propose the hypothesis related to audit committee size as follows:

H1: Size of the audit committee has a positive relationship with tax avoidance.

Previous studies have emphasized that moderators have two characteristics, including risk-takers and risk-averse (Tandean & Winnie, 2016). Watson and McNaughton (2007) argue that women are generally considered more risk averse than men and tend to make decisions carefully. In supporting this view, prior studies found that female members on board can enhance firm performance (Ararat & Yurtoglu, 2020; Smith et al., 2006). Green and Homroy (2018) also find that female members on Board committees increase corporate governance effectiveness and enhance firm performance. According to findings from previous studies, we predict that females on the audit committee can enhance audit committee effectiveness and put constraints on tax avoidance. Thus, we propose the hypothesis H2 as follows:

H2: The percentage of female members in the audit committee has a negative relationship with tax avoidance.

Independent directors on Board were found to be important in corporate governance in literature. Liu et al. (2015) report the positive relationship between board independence in firm performance in China. Shan (2019) finds that board independence has a negative relation to managerial ownership and reduces agency problems. Similar to the Board, the decisions of the audit committee are significantly influenced by independent members, who are outside the company and participate in the management as capital contributors, representatives of the companies' big stockholders. Tandean and Winnie (2016) argue that the independent members can help plan the company's long-term strategies and periodically evaluate strategy implementation to reduce actions related to tax avoidance. Following our expectation, we propose the hypothesis H3 related to audit committee independence as follows:

H3: The percentage of independent members in the audit committee has a negative relationship with tax avoidance.

Finally, listed companies need to select a group of experts with expertise in finance and accounting to join the audit committee (Tandean & Winnie, 2016). The audit committee is then empowered to act independently in performing its duties and responsibilities. The responsibility of the audit committee in corporate governance is to ensure that the company has been run under relevant laws and regulations in the areas of finance and accounting. Therefore, the selection of finance and accounting professionals on the audit committee makes the implementation more independent of the auditors. The collision between management and financial and accounting professionals becomes more difficult, which reduces tax avoidance actions (Tandean & Winnie, 2016; Watts & Zimmerman, 1983). We propose the final hypothesis H4 related to financial and accounting experts in the audit committee as follows:

H4: The proportion of financial and accounting experts in the audit committee has a negative relationship with tax avoidance.

3. Methodology

3.1. Empirical model

Based on the agency theory, the empirical model has the form:

$$Tax_Avo_{it} = \beta_1 Aud_Com_{it} + \alpha X_{it} + \varepsilon_{it} \quad (1)$$

The dependent variable Tax_Avo is tax avoidance. Previous studies did not measure the dependent variable alone because they assumed that each way of measuring the dependent variable has its limitations. However, previous studies used the following two common measures:

First, Hanlon and Slemrod (2009) and Hanlon and Heitzman (2010) measure tax avoidance behavior based on effective tax rate (ETR). ETR is based on the idea that managers are aware that effective tax planning has the potential to reduce tax costs (Dyreng et al., 2008). The practice shows that the measurement by ETR reflects strategies to avoid tax, defer the payable tax expense to later periods, but does not affect the current corporate income tax expense on the financial statements. In addition, ETR is also unaffected by changes in tax policy, thus providing an accurate

estimate of tax avoidance behavior at the firm dynamic level (Dyreng et al., 2008). ETR is measured by current tax paid by the company in accordance with laws of taxation on taxable income.

$$ETR = \text{Currenttaxexpense}/\text{pre} - \text{taxincome} \qquad (2)$$

Dyreng et al. (2008) and Hanlon and Heitzman (2010) suggest that the lower the ETR, the higher the firm's tax avoidance behavior.

Second, Manzon and Plesko (2001) gave a way to determine BTD (Book-tax difference) as the total difference between accounting income before tax and taxable income, then, temporary difference and permanent difference, indicating that the company is practicing tax avoidance. Desai and Dharmapala (2006), Wilson (2010), Lisowsky (2010), and Rego and Wilson (2012) all agree that measuring tax avoidance behavior by BTD is an effective measure because when there is an appearance between income tax calculation according to the accounting records and under the tax law will cause tax avoidance. This difference is calculated as the difference between the profit as recognized by accounting standards on the financial statements (Accounting profit before tax, EBIT) and the taxable income (TI). However, in order to avoid the large difference between the cross-units due to the size of the enterprise affecting the regression results, this indicator is converted to a relative value (%) equal to the ratio between the income difference accounting and tax income relative to property value.

$$TotalBTD = \frac{EBIT - TI}{AvAssets} \qquad (3)$$

Inside:

Total BTD: total book-tax difference

EBIT: Earnings before income tax are recognized according to accounting regulations

TI: Taxable income is recognized under tax law

AvAssets: Average value of assets for the year

Audi_Com is the explanatory variable for the characteristics of the audit committee. Following the previous studies, we would like to test four characteristics of the audit committee including size of the audit committee (committee size), the percentage of female members in the audit committee (gender), the percentage of independent members on audit committee (independence), and the proportion of financial and accounting experts on audit committee (expert). The selection of audit committee characteristics is based on previous studies and exploitable data sources.

Following previous papers, the article uses control variables for the model including firm size (Desai & Dharmapala, 2006; Richardson et al., 2013, 2015; Tandean & Winnie, 2016); Institutional ownership (Tandean & Winnie, 2016; Waluyo, 2017); quality of independent audit (Richardson et al., 2013; Tandean & Winnie, 2016; Waluyo, 2017); ratio of long-term debt to total assets (Richardson et al., 2013); and ROA (Richardson et al., 2013). All variables are summarized in Table 1.

3.2. Data

Our data comprise 468 non-financial firms listed on the Ho Chi Minh City and Ha Noi Stock Exchange over the period 2010–2019. Some listed firms are not included in our data because

Table 1. Variable definition	
Variables	**Definitions and measures**
Tax avoidance	
ETR	effective tax rate, calculated by Equation 2
BTD	Total book-tax difference, calculated by Equation 3
Audit committee characteristics	
ACSIZE	size of the audit committee
ACGEN	the percentage of female members in the audit committee
ACIND	the percentage of independent members
ACEXP	the proportion of financial and accounting experts in the audit committee
Control variables	
FSIZE	Firm size: Logarithm of firm total asset
INSOWN	Institutional ownership: the proportion of ownership of the shares owned by institutional owners and blockholders at the end of the year
QINAU	Quality of independent audit: Get one if a firm uses Big 4 external audit service and zero otherwise
LEV	Firm leverage: long-term debt/total asset
ROA	Return on asset ratio: Net income/Total assets

Table 2. Descriptive statistic

	Obs	Mean	Std. dev.	Min	Max
ETR	3672	0.178	0.124	0.003	0.289
BTD	3672	0.009	0.078	0.001	0.012
ACSIZE	3672	8.842	0.367	0.000	9.000
ACGEN	3672	0.412	1.162	0.000	1.000
ACIND	3672	0.372	0.195	0.000	0.889
ACEXP	3672	0.568	0.157	0.000	0.778
FSIZE	3672	8.750	0.875	5.840	12.110
INSOWN	3672	0.587	0.298	0.054	0.723
QINAU	3672	0.672	0.712	0.000	1.000
LEV	3672	0.452	0.184	0.001	0.975
ROA	3672	0.015	0.028	−0.840	0.095

Note: This table reports some summary statistics for our 468 non-financial firms over the period 2010–2019. See Table 1 for variable definitions.

they did not publish audit committee information. Financial data was collected from Datastream, and data of the audit committee is collected manually on firms' annual reports. After excluding some outliers, our data includes 3672 firm-year observations.

3.3. Estimated method

We use Fixed Effect Model (FEM) and System Generalized Method of Moment (SGMM) for panel data which is applied in the literature (Dang and Nguyen, 2021b). SGMM developed by Arellano and

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Table 3. Correlation matrix

	ETR	BTD	ACSIZE	ACGEN	ACIND	ACEXP	FSIZE	INSOWN	QINAU	LEV	ROA
ETR	1.000										
BTD	0.665**	1.000									
ACSIZE	−0.227***	0.630*	1.000								
ACGEN	−0.499	−0.247**	0.393	1.000							
ACIND	0.425**	−0.115***	0.220**	0.336*	1.000						
ACEXP	−0.493	−0.339***	0.273	−0.326**	0.114	1.000					
FSIZE	0.378*	0.387**	0.273***	0.142*	0.338***	0.417*	1.000				
INSOWN	−0.206**	0.338	−0.338	0.377	0.338	−0.264	−0.160***	1.000			
QINAU	−0.290	−0.243***	−0.249***	0.299**	0.094**	0.382*	−0.420*	0.296***	1.000		
LEV	0.554***	−0.379	0.145	−0.522*	0.380	−0.339**	0.117	0.273*	0.311	1.000	
ROA	0.375	−0.095	0.387**	0.601	0.206***	−0.152	−0.420**	0.339	0.289	0.234**	1.000

Note: This table reports the correlation matrix for primary variables. *, **, *** indicate statistical significance at the 1%, 5% and 10% level respectively. See Table 1 for variable definitions.

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Bond (1991) has been widely used because it addresses the endogeneity of the exploratory variables through a variety of instrumental variables (Arellano, 2003; Arellano & Bover, 1995). In addition, we also apply the Hansen test with over-identification to examine whether there is a correlation between the instrumental variable and the residual in the model.

4. Empirical results

4.1. Descriptive statistics and matrix

Table 2 presents the summary statistics of all variables. The mean of ETR and BTD is higher than the sample of Armstrong et al. (2012). It indicates that tax avoidance in developing countries like Vietnam may be higher than in developed countries. The mean of audit committee size is 8.82. It is lower than in financial firms US samples of Nguyen (2021b). Moreover, the means of ACGEN and ACIND is quite low (0.412 and 0.372 respectively), implying that the proportion of female and independent members on the audit committee is not high. There are many differences in audit committee size, proportion of independent members as well as proportion of female members of firms in our sample. However, the mean of ACEXP is higher and the standard deviation is just 0.157.

Table 3 shows the correlation coefficients between our primary variables. As expected, most of the audit committee variables are significantly correlated with firm tax avoidance. The absolute maximum value is 0.665 for the coefficient between ETR and BTD. This indicates that their inclusion will not present any problem of multicollinearity.

4.2. Main results

Table 4 reports the results of Equation 1 which examines the relationship between audit committee characteristics and tax avoidance. For each of the tax avoidance measures, we run fixed effect regressions. Regression 1 reports that the coefficients on AC SIZE are negative and statistically significant with ETR but positive and significant with BTD. It indicates that audit committee size increases tax avoidance and strongly supports hypothesis H1. Our results are consistent with the prior studies. Audit committee size may reduce audit committee effectiveness (Nguyen, 2021a, 2021b; Q. Nguyen & Dang, 2020) and therefore reduce their role in constraining tax avoidance. This is because the large size makes the audit committee more complex and reduces their effectiveness in decision-making. As expected, the coefficients on ACGEN are positive and significant with ETR, but negative and significant with BTD, indicating that female members can enhance audit committee effectiveness on constraining tax avoidance. While Nguyen (2021a, 2021b) find no evidence that female in audit committee can constrain firm risk, our finding implies that audit committee should increase the percentage of female member on audit committee for controlling tax avoidance purpose. Moreover, this finding is consistent with prior studies that suggest that females have better performance on board of directors or audit committees than counterparts (Abbott et al., 2012; Sun et al., 2011). Our hypothesis H2 was strongly supported. Although the coefficients on ACIND are positive and negative with ETR and BTD respectively, they are not significant. We do not find strong evidence that audit committee independence can reduce tax avoidance. These results are not consistent with Nguyen (2021a) who finds that independence increases audit committee effective-ness. This may be because, in controlling tax avoidance, audit committee members must understand the firm's management clearly so the outside members may not have the advantage to do it. Thus, this result does not support hypothesis H3. However, the coefficients on ACEXP are positive and negative with ETR and BTD, respectively. Both coefficients are statistically significant and give us firm evidence that accounting and financial experts on the audit committee can constrain tax avoidance behaviors. Tax avoidance activities often were done through earning management activities when managers seek to increase accounting profit but not taxable profit in order to minimize tax costs. Therefore, an audit committee with more accounting and financial experts can make them control

Table 4. Fixed effect estimation results for audit committee characteristics—tax avoidance relation

	ETR		BTD	
Independent variables	**Coeff**	**t-stat**	**Coeff**	**t-stat**
ACSIZE	−0.024***	−3.152	0.001**	1.987
ACGEN	0.012**	2.214	−0.000***	−2.952
ACIND	0.009	0.924	−0.002	−0.875
ACEXP	0.005**	2.075	−0.001*	−1.786
FSIZE	−0.021*	−1.872	0.004	1.478
INSOWN	0.005	1.214	0.000*	1.272
QINAU	0.018*	1.798	−0.001**	−2.120
LEV	−0.007	−0.875	0.014	1.219
ROA	0.011	1.247	0.000	0.756
Const	0.423	0.217	0.017**	1.954
Industry dummy	yes		yes	
Year dummy	yes		yes	
R-square	0.323		0.347	
Obs	3672		3672	

Note: This table presents fixed effect method estimations relating audit committee characteristics and tow specific tax avoidance measures. All columns use country fixed effects. All variables were defined in Table 1. *Significance at the 10% level. **Significance at the 5% level. ***Significance at the 1% level.

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Table 5. System GMM estimation results for audit committee characteristics—tax avoidance relation

	ETR		BTD	
Independent variables	**Coeff**	**t-stat**	**Coeff**	**t-stat**
ACSIZE	−0.036***	−2.419	0.000*	1.821
ACGEN	0.041*	1.821	−0.002**	−2.142
ACIND	0.007*	1.725	−0.004	−1.524
ACEXP	0.092***	3.342	−0.000**	−1.927
FSIZE	0.036***	2.415	−0.003*	−1.786
INSOWN	−0.008	−1.532	0.000	0.954
QINAU	0.026**	1.896	−0.001***	−3.842
LEV	0.017	1.674	0.000	0.547
ROA	−0.036*	−1.782	0.002	1.238
Const	0.214	1.117	0.067*	1.826
Hansen J test (p-value)	0.423		0.245	
AR(1) (p-value)	0.000		0.014	
AR(2) (p-value)	0.324		0.425	
Obs	3672		3672	

Note: This table presents System GMM estimations relating audit committee characteristics and two specific tax avoidance measures. All variables were defined in Table 1. *Significance at the 10% level. **Significance at the 5% level. ***Significance at the 1% level.

tax avoidance better. Moreover, the collision between management and financial and accounting professionals becomes more difficult, which reduces tax avoidance actions (Tandean & Winnie, 2016; Watts & Zimmerman, 1983). This result is consistent with previous studies. For example, Zalata et al. (2018) find that financial and accounting experts can enhance audit committee effectiveness and constrain earning management. This result strongly supports hypothesis H4. Overall, although not all four of our hypotheses were supported, we provide evidence that the audit committee has an important role in constraint tax avoidance behavior and contribute to the literature empirical evidence about the relationship between audit committee characteristics and tax avoidance in emerging countries.

Besides main variables, the results of some control variables also give us some interesting findings. First, the coefficients on FSIZE are negative and significant with ETR, but positive and insignificant with BTD, implying that firm size may increase tax avoidance. This finding well supports prior studies. For example, Offenberg (2009) found that large firms have low effectiveness of control systems and thus may increase tax avoidance. Second, as expected, we find that external audit quality has an important role in constraining tax avoidance behavior. The coefficients on QINAU are positive and negative with ETR and BTD, respectively. The literature finds that the main role of external audit is to enhance financial report quality and prevent earning management (Lin & Hwang, 2010). In addition, external audits may enhance a firm's internal corporate governance (Fan & Wong, 2005). These findings provide some implications that large firms should focus on audit committee characteristics and consider using external audit services with high quality.

4.3. Robustness test

As a robustness test, we applied the System GMM method to estimate Equation 3 and the results are reported in Table 5. The signs of coefficients on ACSIZE remain negative and positive with ETR and BTD and consistent with our first results, supporting hypothesis H1. Similarly, the robustness results also provide evidence of the negative relationship between the proportion of female members on the audit committee and tax avoidance behavior. The signs of coefficients on ACGEN remain unchanged with our first results and continue supporting hypothesis H2. However, unlike our first results, Table 5 reports that the coefficient on ACIND is positive and significant at 10% level with ETR (not significant with BTD), implying that independent members on the audit committee may constraint tax avoidance behavior. Based on these robustness test results, hypothesis H3 may be supported but not strong. Finally, the coefficients on ACEXP are positive and significant with ETR and negative and significant with BTD. The signs of these coefficients remain unchanged with our first results. Therefore, we find strong evidence of a positive relationship between financial and accounting experts on the audit committee and tax avoidance behavior.

In the System GMM method, we test the instrument validity by using Hansen's J statistic of overidentifying restrictions. The test results that are reported in Table 5 show that the models do not reject the null hypothesis of valid instruments (because all p-values are higher than 0.1). In addition, we also use the Arellano and Bond (1991) AR (1) & AR (2) tests for first- and second-order serial autocorrelation to check whether deeper lags of the instrumented variables are correlated with deeper lags of the disturbances. The results show that our instruments applied in the models are appropriate.

5. Conclusion

In the context of tax avoidance activities become more and more sophisticated and complex. Based on agency theory, this study examines the relationship between audit committee characteristics and a firm's tax avoidance behavior. By using panel data of 468 non-financial firms listed on the Ho Chi Minh City and Ha Noi Stock Exchange over the period 2010–2019, our results provide strong evidence about the relationship between audit committee characteristics and tax avoidance behavior.

Specifically, we find that audit committee size has a positive correlation with tax avoidance. However, the proportion of female members, financial and accounting experts on the audit committee can constrain tax avoidance behaviors. Although our findings are consistent with previous studies that appropriate audit committee structure enhances its effectiveness, our study adds to the literature the new roles of audit committee, i.e. they can constrain tax avoidance activities. Furthermore, our findings provide several important policy implications for shareholders and regulators. First, shareholders should investigate audit committee characteristics to manage tax avoidance activities. Second, regulators should pay special attention to large listed companies with large audit committees or a low proportion of female members, financial and accounting experts on audit committees because of high potential tax avoidance. Tax avoidance is one of the issues that shareholders should pay attention to since these activities are tied to their interests. While tax avoidance can be beneficial to companies in the short term, it carries risks in the long run because it can be illegal. When corporate owners decide whether to accept tax avoidance behaviors, they must consider a variety of issues related to the benefits, costs, and risks that may arise from doing so. Therefore, the company owners who want to control tax avoidance activities need to pay attention to the characteristics of the audit committee, such as the gender and size of the committee, the number of independent members, financial and accounting experts. Because Vietnamese listed firm publishes less information about audit committee, this study only focuses on four characteristics of audit committee. Future studies can extend more characteristics or perform in the different economies.

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References

Abbott, L. J., Parker, S., & Presley, T. J. (2012). Female board presence and the likelihood of financial restatement. *Accounting Horizons*, *26*(4), 607–629. https://doi.org/10.2308/acch-50249

Al Farooque, O., Buachoom, W., & Sun, L. (2019). Board, audit committee, ownership and financial performance – Emerging trends from Thailand. *Pacific Accounting Review*, *32*(1), 54–81. https://doi.org/10.1108/PAR-10-2018-0079

Annisa, N. A., & Kurniasih, L. (2012). Pengaruh corporate governance terhadap tax avoidance. *Jurnal Akuntansi Dan Auditing*, *8*(2), 123–136 http://dx.doi.org/10.31093/jraba.v3i1.91. .

Ararat, M., & Yurtoglu, B. B. (2020). Female directors, board committees, and firm performance: Time-series evidence from Turkey. *Emerging Markets Review*, *48*1, 100768. https://doi.org/10.1016/j.ememar.2020.100768.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, *58*(2), 277–297. https://doi.org/10.2307/2297968

Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics*, *68*(1), 29–51. https://doi.org/10.1016/0304-4076(94)01642-D

Arellano, M. (2003). *Panel data econometrics*. Oxford university press.

Armstrong, C. S., Blouin, J. L., & Larcker, D. F. (2012). The incentives for tax planning. *Journal of Accounting and Economics*, *53*(1–2), 391–411. https://doi.org/10.1016/j.jacceco.2011.04.001

Ashfaq, K., & Rui, Z. (2019). The effect of board and audit committee effectiveness on internal control disclosure under different regulatory environments in South Asia. *Journal of Financial Reporting and Accounting*, *17*(2), 170–200. https://doi.org/10.1108/JFRA-09-2017-0086

Beasley, M. S. and Salterio, S. E. (2001). The Relationship between Board Characteristics and Voluntary Improvements in Audit Committee Composition and Experience*. *Contemporary Accounting Research*, *18* (4), 539–570. https://doi.org/10.1506/RM1J-A0YM-3VMV-TAMV

Collier, P. (2006). African growth: Why a 'big push'? *Journal of African Economies*, *15*(suppl_2), 188–211. https://doi.org/10.1093/jae/ejl031

Dang, V C.,and Nguyen, Q. K. (2021b). Determinants of FDI attractiveness: Evidence from ASEAN-7 countries. *Cogent Social Sciences*, *7*(1), https://doi.org/10.1080/23311886.2021.2004676

Dang, V. C., and Nguyen, Q. K. (2021a). Internal corporate governance and stock price crash risk: evidence from Vietnam. *Journal of Sustainable Finance & Investment*, 1–18. https://doi.org/10.1080/20430795.2021.2006128

Dang, V. C., Tran, X. H., & McMillan, D. (2021). The impact of financial distress on tax avoidance: An empirical analysis of the Vietnamese listed companies. *Cogent Business & Management*, *8*(1), 1953678. https://doi.org/10.1080/23311975.2021.1953678

Desai, M. A., & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics*, *79*(1), 145–179. https://doi.org/10.1016/j.jfineco.2005.02.002

Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2008). Long-run corporate tax avoidance. *The Accounting Review*, *83*(1), 61–82. https://doi.org/10.2308/accr.2008.83.1.61

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law & Economics*, *26*(2), 301–325. https://doi.org/10.1086/467037

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, *88*(2), 288–307. https://doi.org/10.1086/260866

Fan, J. P., & Wong, T. J. (2005). Do external auditors perform a corporate governance role in emerging markets? Evidence from East Asia. *Journal of Accounting Research*, *43*(1), 35–72. https://doi.org/10.1111/j.1475-679x.2004.00162.x

Forker, J. J. (1992). Corporate governance and disclosure quality. *Accounting and Business Research*, *22*(86), 111–124. https://doi.org/10.1080/00014788.1992.9729426

Gillan, S. L. (2006). *Recent developments in corporate governance: An overview*. Elsevier.

Green, C. P., & Homroy, S. (2018). Female directors, board committees and firm performance. *European Economic Review*, *102* (1) , 19–38. https://doi.org/10.1016/j.euroecorev.2017.12.003

Grossman, S. J., & Hart, O. D. (1980). Takeover bids, the free-rider problem, and the theory of the corporation. *The Bell Journal of Economics*, *11*(1), 42–64. https://doi.org/10.2307/3003400

Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics*, *50*(2–3), 127–178. https://doi.org/10.1016/j.jacceco.2010.09.002

Hanlon, M., & Slemrod, J. (2009). What does tax aggressiveness signal? Evidence from stock price reactions to news about tax shelter involvement. *Journal of Public Economics*, *93*(1–2), 126–141. https://doi.org/10.1016/j.jpubeco.2008.09.004

Hart, O. D. (1983). The market mechanism as an incentive scheme. *The Bell Journal of Economics*, *14*(2), 366–382. https://doi.org/10.2307/3003639

Hsu, P.-H., Moore, J. A., & Neubaum, D. O. (2018). Tax avoidance, financial experts on the audit committee, and business strategy. *Journal of Business Finance & Accounting*, *45*(9–10), 1293–1321. https://doi.org/10.1111/jbfa.12352

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Khlif, H., & Amara, I. (2019). Political connections, corruption and tax evasion: A cross-country investigation. *Journal of Financial Crime*, *26*(2), 401–411. https://doi.org/10.1108/JFC-01-2018-0004

Lin, J. W., & Hwang, M. I. (2010). Audit quality, corporate governance, and earnings management: A meta-analysis. *International Journal of Auditing*, *14*(1), 57–77. https://doi.org/10.1111/j.1099-1123.2009.00403.x

Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *The Business Lawyer* 48(1), 59–77. https://www.jstor.org/stable/40687360.

Lisic, L. L., Myers, L. A., Seidel, T. A., & Zhou, J. (2019). Does audit committee accounting expertise help to promote audit quality? Evidence from auditor reporting of internal control weaknesses. *Contemporary Accounting Research*, *36*(4), 2521–2553. https://doi.org/10.1111/1911-3846.12517

Lisowsky, P. (2010). Seeking shelter: Empirically modeling tax shelters using financial statement information. *The Accounting Review*, *85*(5), 1693–1720. https://doi.org/10.2308/accr.2010.85.5.1693

Liu, Y., Miletkov, M. K., Wei, Z., & Yang, T. (2015). Board independence and firm performance in China. *Journal of Corporate Finance*, *30*, 223–244. https://doi.org/10.1016/j.jcorpfin.2014.12.004

Manzon, G. B., Jr, & Plesko, G. A. (2001). The relation between financial and tax reporting measures of income. *Tax Law Review*, *55*(1) , 175. https://heinonline.org/HOL/LandingPage?handle=hein.journals/taxlr55&div=13&id=&page=.

McMullen, D. A. (1996). Audit committee performance: An investigation of the consequences associated with audit committees. *Auditing*, *15*(1), 87 https://www.proquest.com/openview/5f1a821ba2bdd6de96d13e575faf62e8/1?pq-origsite=gscholar&cbl=31718.

Nguyen Q Khai. (2022). Determinants of bank risk governance structure: A cross-country analysis. *Research in International Business and Finance, 60,* 101575. https://doi.org/10.1016/j.ribaf.2021.101575

Nguyen, Q. K. . (2020). Ownership structure and bank risk-taking in ASEAN countries: A quantile regression approach. *Cogent Economics & Finance*, *8*(1), 1809789. https://doi.org/10.1080/23322039.2020.1809789

Nguyen, Q. K. (2021a). Audit committee structure, institutional quality, and bank stability: Evidence from ASEAN countries. *Finance Research Letters*, *102369*. doi:https://doi.org/10.1016/j.frl.2021.102369

Nguyen, Q. K. (2021b). Oversight of bank risk-taking by audit committees and Sharia committees: Conventional vs Islamic banks. *Heliyon*, *7*(8), e07798. https://doi.org/10.1016/j.heliyon.2021.e07798

Nguyen,Q., & Dang, V. (2020). Audit committee structure and bank stability in Vietnam. *ACRN Journal of Finance and Risk Perspectives*, *8*(1), 240–255.https://doi.org/10.35944/jofrp.2019.8.1.015

Offenberg, D. (2009). Firm size and the effectiveness of the market for corporate control. *Journal of Corporate Finance*, *15*(1), 66–79. https://doi.org/10.1016/j.jcorpfin.2008.09.006

Oussii, A. A., & Taktak, N. B. (2018). Audit committee effectiveness and financial reporting timeliness. *African Journal of Economic and Management Studies*, *9*(1), 34–55. https://doi.org/10.1108/AJEMS-11-2016-0163

Pham Q. T., Ho X. T., Nguyen T. P., Pham T. H. and Bui A. T. (2021). Financial reporting quality in pandemic era: case analysis of Vietnamese enterprises. *Journal of Sustainable Finance & Investment*, 1–23. https://doi.org/10.1080/20430795.2021.1905411

Plesko, G. A. (2002). Reconciling corporation book and tax net income. *Statistics of Income: SOI Bulletin. Bulletin*, *21*(4), 111.

Rego, S. O., & Wilson, R. (2012). Equity risk incentives and corporate tax aggressiveness. *Journal of Accounting*

Research, *50*(3), 775–810. https://doi.org/10.1111/j.1475-679X.2012.00438.x

Richardson, G., Taylor, G., & Lanis, R. (2013). The impact of board of director oversight characteristics on corporate tax aggressiveness: An empirical analysis. *Journal of Accounting and Public Policy*, *32*(3), 68–88. https://doi.org/10.1016/j.jaccpubpol.2013.02.004

Richardson, G., Taylor, G., & Lanis, R. (2015). The impact of financial distress on corporate tax avoidance spanning the global financial crisis: Evidence from Australia. *Economic Modelling*, 44, 44–53. https://doi.org/10.1016/j.econmod.2014.09.015

Shan, Y. G. (2019). Managerial ownership, board Independence and firm performance. *Accounting Research Journal*, *32*(2), 203–220. https://doi.org/10.1108/ARJ-09-2017-0149

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, *52*(2), 737–783. https://doi.org/10.1111/j.1540-6261.1997.tb04820.x

Smith, N., Smith, V., & Verner, M. (2006). Do women in top management affect firm performance?A panel study of 2,500 Danish firms. *International Journal of Productivity and Performance Management*, *55*(7), 569–593. https://doi.org/10.1108/17410400610702160

Sun, J., Liu, G., & Lan, G. (2011). Does female directorship on independent audit committees constrain earnings management? *Journal of Business Ethics*, *99*(3), 369–382. https://doi.org/10.1007/s10551-010-0657-0

Tandean, V. A., & Winnie, W. (2016). The effect of good corporate governance on tax avoidance: An empirical study on manufacturing companies listed in IDX period 2010-2013. *Asian Journal of Accounting Research*, *1*(1), 28–38. https://doi.org/10.1108/AJAR-2016-01-01-B004

Tjondro, E., & Olivia, V. (2018). Role of audit committee in tax avoidance of family and non-family firms: Evidence from Indonesia. *Journal of Economics and Business*, *1*(3), 368–380. https://doi.org/10.31014/aior.1992.01.03.34

Waluyo, W. (2017). The effect of good corporate governance on tax avoidance: Empirical Study of The Indonesian Banking Company. *The Accounting Journal of Binaniaga*, *2*(2), 1–10. https://doi.org/10.33062/ajb.v2i02.92

Watson, J., & McNaughton, M. (2007). Gender differences in risk aversion and expected retirement benefits. *Financial Analysts Journal*, *63*(4), 52–62. https://doi.org/10.2469/faj.v63.n4.4749

Watts, R. L., & Zimmerman, J. L. (1983). Agency problems, auditing, and the theory of the firm: Some evidence. *The Journal of Law & Economics*, *26*(3), 613–633. https://doi.org/10.1086/467051

Wilson, R. (2010). Discussion of "credit ratings and taxes: The effect of book-tax differences on ratings changes". *Contemporary Accounting Research*, *27*(2), 403–411. https://doi.org/10.1111/j.1911-3846.2010.01012.x

Xie, B., Davidson, W. N., III, & DaDalt, P. J. (2003). Earnings management and corporate governance: The role of the board and the audit committee. *Journal of Corporate Finance*, *9*(3), 295–316. https://doi.org/10.1016/S0929-1199(02)00006-8

Zalata, A. M., Tauringana, V., & Tingbani, I. (2018). Audit committee financial expertise, gender, and earnings management: Does gender of the financial expert matter? *International Review of Financial Analysis*, *55*, 170–183. https://doi.org/10.1016/j.irfa.2017.11.002

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