Corporate governance: Does it matter for tax rationalization? An empirical analysis of Pakistani firms

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Abstract

This paper examines how the corporate governance mechanisms impact the tax avoidance rationale of the public limited firms of Pakistan. Tax avoidance has grown in significance in policymaking. This study adds to the literature by providing a perspective from a developing country, Pakistan, particularly with a unique data set of its listed firms. The study adds interest by investigating corporate governance mechanisms and how they influence tax avoidance. In the study sample size consists of 295 non-financial firms listed on the Pakistan stock exchange (PSX) from 2016 to 2020. The regression results indicated that the corporate governance mechanism does influence the tax avoidance of the publicly listed firms of Pakistan. Specifically, it was found that the number of independent directors on the board and the external audit fee had a significant negative relationship with the effective tax rates. While the other variables, such as board political connections, board expertise, compensation, institutional shareholding and, big4 affiliation were insignificant. The control variables, liquidity, and firm age had a significant positive relationship with the effective tax rate. The leverage had a significant negative relationship with the effective tax rate. The firm size was insignificant. The findings of this study are informative for lawmakers and suggest that corporate governance is important and that attention should be paid to reducing tax avoidance practices.

Keywords: Corporate Governance Mechanism, Firm Characteristics, Corporate Tax Avoidance

Introduction

The public finance literature has emphasized broadly on taxation and how the fiscal institutions and their policies interplay, (Musgrave & Musgrave, 1989). With more studies of the public finance literature and how the taxpayers respond to taxation, much attention has

been caught up with corporate entities and how they are performing as taxpayers, further what could be a reasonable tax policy that could to a greater extent impact the businesses, (Chennels, 1997). In this way, public finance literature also paved the way forward to how the rationale of the management of the firms and their response towards taxation is inferred. For an instance, one of the studies by Desai and Dharmpala (2009) came up with implications on how the policymakers should come up with a policy framework concerning corporate taxation. Corporate taxation is largely influenced by the management of the firms and their governance structure. Therefore study of Desai and Dharmapa (2009) also emphasized the questionability on the rationale of the corporate governance practices of the firms and their distinctive financial reporting for taxation. In their previous study Desai and Dharmapala (2006) documented the inclinations where the organizations reduce their tax income. The researchers considered these practices as agency perspective on tax avoidance, which they also termed as corporate governance view of taxation. The corporate governance mechanism influences the overall business performance, especially its tax management. The corporate governance structure, consisting of the management of the firm has its own incentives and rationale with respect to the taxation of the firm. This can also lead to managerial opportunism (Minnick & Noga, 2010). Therefore, the tax has important implications for the firm's corporate governance mechanism.

To better understand and look at the definition of taxation, the taxation can be described as an obligatory levy by the government on the individual's income or wealth without a direct trade-off, (Payne & Raiborn,2015; Song & Yarbrough,1978). The tax literature has formed a line of division among different tax practices and how they are rationalized. For example, the tax payers, in the form of the public firms, how they pay corporate taxes. The management of the firm's rationale in paying the taxes can be distinguished further between tax evasion and avoidance. The tax evasion is not only dishonesty but it's also a legal violation of the tax laws, (Sikka, 2010). As for the tax avoidance, (Payne & Raiborn, 2015) is considered rational business planning. This is a legal practice, where the tax liabilities are reduced within the legal sphere, with full disclosure; however, there are also arguments for it. In one of the studies, Hansen et al. (1992) termed it not a sound business practice. As such in most cases, the legal loopholes are violated to take advantage of paying less tax. The spirit of the law is violated. Hansen et al. (1992) asserted that accounting professionals should practice being more concerned with the spirit of the law than the technical considerations in laws to reduce it. Tax avoidance was termed as unethical behavior.

Although tax avoidance can be referred to as using legal tools despite this there is an unacceptable region of tax avoidance that is mainly based on misunderstanding and uncertainties in the tax rules (Oats & Tuck, 2019). This study doesn't press upon the question of law and the legitimacy of the tax avoidance, however its puts emphasis on tax avoidance practice among the public limited firms and how other important factors influence it. This study takes into account the "tax avoidance" particularly. Which is defined as encompassing anything that reduces the firm's taxes with respect to its pretax accounting income (Dyreng

et al., 2008, 2010, & 2019). In line with taxation the management of the firm through its corporate governance structure has its business motives, principally to increase the profits of the organization. The shareholders are also inclined to gain maximum share value which is dependent upon the firm's positive net income. The management has this rationalization to avoid or evade taxation so that the shareholders could profit, (Payne & Raiborn, 2015). Due to tax evasion or avoidance, there is a huge revenue loss for the state. Since corporate taxation is one of the major sources of fiscal revenues for the state, (Wang et al 2019), its avoidance or evasion is a huge revenue loss, especially for the low-income countries, which cannot bear such a huge loss, (Cobham & Jansky, 2018). In the past, the debate about corporate tax avoidance has been a source of wide discussion in many academic papers, and it is also gaining wide interest, (Hanlon & Heitzman, 2010; Huseynov & Klamm, 2012). Although most of the studies of corporate tax avoidance have been done in economically advanced countries, there exists a research space concerning developing countries. Especially in the developing country of Pakistan corporate tax avoidance exists and leads to a huge revenue loss, (Marwat et al., 2021). In the developing World, the research is limited with respect to tax avoidance.

With respect to tax rationalization, the area of concern for the study is tax avoidance, which is a legal practice to reduce the tax liability. Most of the tax literature is dominated by the developed countries. Wang et al. (2019) have stressed upon the need to further look into corporate tax avoidance in the developing countries, where their unique institutional setting and background can provide further corporate tax avoidance research. Importantly in the developed World the tax system is strong, this makes tax avoidance relatively difficult. However, it's not the case in the developing World, where the tax system is not so strong, for example in the developing country, like Pakistan there are tax compliance issues (Best et al., 2015). Low tax compliance leads to lower tax revenues, which impacts the GDP of the country. A study by PIDE documented that Pakistan has one of the lowest tax-to-GDP ratios, (Bukhari & Haq, 2020). This has aggravated the fiscal deficits also. The key problem here is tax compliance, especially concerning public limited firms. In one of the studies by PIDE, Faraz et al. (2021) recognized the low tax collections in Pakistan, stating that for the exemptions and zero ratings, the non-compliance of taxation is about 31% of actual tax collection of the Federal Bureau of Revenue (FBR). Furthermore, there is a wide value-added tax (VAT) gap under the tax policy regime. It was further elaborated in their study that the potential VAT gap is about 51% of actual tax collection which is roughly 3% of the gross domestic product (GDP). Additionally, for the importance of tax revenues, Pakistan needs to boost its tax revenues as it has a huge public debt of 66 percent of GDP (March 2022) which is Rs44 trillion. The tax-to-GDP ratio is also very low at 9 percent. Therefore there is a dire need to improve the country's tax collection, (Rehman, 2022).

The study has its aims to empirically investigate how the corporate governance mechanism affects the tax avoidance rationale of the non-financial listed firms of Pakistan. The corporate

governance mechanism has its role in controlling the organization, particularly, the management decisions which also consist of taxation, (Minnick & Noga, 2010). It is expected that the corporate governance mechanism, through its board is likely to exert its influence over the tax avoidance. This study further adds insights into examining the audit quality, which also has been considered to be a part of corporate governance mechanism (Anderson, 1993). Since the auditors are considered to be the watchdogs for any organization, it is of equal interest to see what role they play when it comes to tax avoidance. This study puts critical analysis of the corporate governance mechanism by also looking closely at the audit practice. Especially the board's roles along with the audit practice how it affects the tax avoidance. The board independence is questioned, along with the audit framework. This study carries its weightage by looking at the unique governance and institutional characteristics of the listed firms of Pakistan. This study not only extends the governance and tax literature, but also provides improvement in the understanding of the corporate governance mechanism in a developing country, Pakistan's perspective.

Tax compliance is one of the major hurdles on the fiscal side. In Pakistan, its high debt makes the fiscal targets difficult to achieve. Due to this, Pakistan needs to raise its tax-to-GDP ratio. Concerning the present problems of the fiscal side, this study provides necessary understanding in the area of public limited firms and their tax rationalization behavior, especially how the corporate governance mechanism plays its role in it.

Importantly, this study addresses the research gap of the specific tax literature with the context of a developing country's perspective. Although there have been different studies on taxation, particularly tax avoidance. The key feature that makes this study unique and different from the other studies is that firstly it takes the firm's sample from a developing country, Pakistan. Secondly, it looks into the important corporate governance mechanisms such as board independence along with the audit quality frameworks like audit fees and how these salient organization components affect tax avoidance since the corporate governance mechanism of Pakistan is distinct from the other countries. Corporate tax avoidance is largely influenced by the country's tax system and its governance structure (Atwood et al., 2012). Thirdly it also takes into consideration the firm characteristics as control variables to examine their impact on tax avoidance in line with the study of Ginesti et al. (2020). It is pertinent to understand that the listed firms of Pakistan have their unique firm characteristics; due to this, it is worth considering on looking how these distinctive firm characteristics affect corporate tax avoidance. Fourthly in line with the previous tax literature by Drake et al. (2020) which documented that effective tax rates (ETR) have been an interest to researchers, policymakers, and investors for understanding the deliberate tax planning of the firms. This study similarly also extends the literature by providing an important understanding of how effective tax rates (ETR) can indicate the tax planning and avoidance incentives of the listed firms of Pakistan, which is important for the stakeholders to know. Lastly, what makes this study distinct from

the previous studies is that it provides the necessary guidelines for the best possible tax policy framework for the corporate governance practice of Pakistan.

Literature Review

In tandem with the theory of tax avoidance, there has been a focus on the basic principles of tax avoidance, (Stiglitz, 1985). The tax and governance literature shows that managers have this tendency to reduce tax liability, irrespective of whether it's legally acceptable or unacceptable. In this way, the researcher's often overlooked the parameters that can tell whether the legal boundaries were violated or not, (Guenther et al., 2013). Tax avoidance falls in the region where questionability arises whether it's within the legal parameters or not, (Oats and Tuck, 2019). The discourse on public accountability and disclosures has been ongoing, especially about tax avoidance. Tax avoidance has also become an academic debate; (Addison & Muller, 2015; Sikka, 2003; Sikka, 2018; Sikka & Hampton, 2005). The previous evidence shows that firms try to minimize their taxes to increase their profitability. They carry on the practices of Tax sheltering, tax deferrals, and the misclassification of financial statements, (Graham & Tucker, 2006; Scholes et al., 2015). These are commonly referred to as tax avoidance. Corporate tax avoidance has gained wide public attention since the global financial crisis of 2008 (Oat & Tuck, 2019). Tax avoidance has been considered a vital threat to the tax system for both developed and developing countries (Barker, 2009). Despite the fact that research on tax avoidance has gained its importance, however there is still limitation. The corporate governance is among the factors that can cause corporate tax avoidance. However this area isn't explored with the context to the developing countries (Wang et al., 2019).

Corporate Governance and Tax Avoidance

Corporate governance is an important component of any organization. Fama and Jensen (1983) have described corporate governance as a control mechanism to safeguard the interest of the stakeholders of the business. The prior literature has documented the monitoring mechanisms of corporate governance, which are external audit, internal audit, and directorship (Anderson, 1993). A study by Robinson et al. (2012) suggested that specialized knowledge particularly in the accounting of the directors in organizations portrays positive and valuable advice to their organization, while simultaneously also having a better watch over the managers. However the study also documented that the tax planning activity is largely influenced with the presence of financial and accounting expertise in the audit committee. The study highlighted the tax planning in context to its riskiness. Likewise, Doo and Yoon (2020) found that the corporate governance mechanism alone doesn't mitigate the tax-motivated income shifting, except in cases where there are accounting and finance experts on the board. However, contrasting findings were suggested (Guner et al., 2008) that increasing the number of directors who have financial expertise will not benefit the shareholders if conflicts of interest prevailed in the organization. Since tax avoidance is

associated with tax planning, therefore different conflicts of interest are likely to arise with different goals of the organization. The accounting practice is much different in the developing country, Pakistan (Ashraf & Ghani, 2005). In the context of Pakistan there is also a research limitation in this area. Therefore, it is equally important to examine how the board's expertise influences the tax avoidance in an emerging country, Pakistan. The following hypothesis has been formulated;

***H1**: There is a negative relationship between board's financial expertise and tax avoidance.*

In a study by Khan et al. (2017), the researchers found a significant positive relationship between institutional shareholding and the corporate tax avoidance of the Russel 2000 Index firms. It was revealed that an increase in institutional shareholding causes an increase in tax avoidance. They gave a finding opposite to the findings of Khurana and Moser (2012). The study by Khurana and Moser (2012) found a negative association between institutional shareholdings and tax avoidance. The study by Khurana and Moser (2012) also documented that firm's governance was a driving factor behind this association. Furthermore, the study also mentioned the institutional type that had a key role over the tax avoidance, for example the long term institutional shareholders. Admittedly, there are mixed results. The previous studies provided insight that type of institutional shareholding has its importance in influencing the tax avoidance distinctively. This puts forward to further look the institutional shareholding in the context of corporate governance and how it can influence corporate tax avoidance, especially in an emerging country, such as Pakistan. Pakistan being a developing country has its own unique institutional and corporate governance structure. Therefore this study looks to address the research gap in this area. The following hypothesis has been formulated;

***H2**: There is a positive relationship between institutional shareholding and tax avoidance.*

Another important part of the corporate governance mechanism is the director's compensation. There have been numerous studies that have analyzed the effects of the director's compensation not only on the overall performance of the organization but equally importantly how it impacts taxation. There is an argument that the higher compensation can out-turn the non-executive director's independence, leading to lower monitoring, which can cause tax avoidance. Goh and Gupta (2016) found that director remuneration is negatively linked to monitoring characteristics such as the independence of the director. However the study by Goh and Gupta (2016) has been done in the UK which has a different regulatory framework. Above all, in a study by Minnick and Noga (2010), it was found that the director's compensation contracts motivated the directors to reduce taxes. Their results also revealed that better tax management has positive effects on the shareholder's wealth. However, the study also clarified that the tax management is subject to the governance structure. Different firms have different governance structures. More importantly, the corporate governance structures are highly influenced by each country's regulations,

especially the developing countries (Hope, 2009). Furthermore, not all services of directors are incentivized. Therefore, there are arguments that higher remuneration isn't necessary linked to tax avoidance. However, since the literature in this area is limited, especially most of the studies are on the economically advance countries. The governance and institutional structure of the developing countries are much different than the developed countries, (Hope, 2009; Wang et al., 2019). This study therefore, looks to address the research gap by examining the how the compensation of the directors impact the tax avoidance of the listed firms of Pakistan. The following hypothesis has been formulated;

H3*: The higher director's compensation increases tax avoidance.*

Another important part of the corporate governance mechanism is the political connectivity of the board of directors. Another study by Saeed et al. (2019) found that the political connections of a firm affect its performance. The results indicated that politically connected firms perform much better as compared to firms that are not politically connected. The reason for superior performance is easier access to debt and lower tax rates. However the study also stressed that the regulatory framework affects the industries differently. The political ties are highly subjective to those regulatory frameworks. This motivates to further analyze the different industries. In one of the studies Kim and Zhang (2016) documented that political connections in the firm are linked to corporate tax avoidance. The study was done in the US which is a highly advanced economy. Furthermore, the study also clarified that the association between political connection and tax avoidance are heavily influenced by the tax laws and enforcements. It is to be noted that the US has different tax law and enforcement measures. Therefore, there is further need to explore how the Pakistan being a developing country, its board's political ties affects its tax avoidance, in a different tax and enforcement environment. Importantly, in Pakistan, the public limited firms are mostly dominated by business groups (Saeed et al., 2019), which are highly influential families, both economically and politically. Therefore, there is a gap in the literature in this space; there is a need to further look at this area. The following hypothesis has been formulated;

H4: *There is a positive relationship between politically connected boards and tax avoidance.*

Independent directors have an important role in the corporate governance of any organization. The study by Armstrong et al. (2015) found a negative relationship between the Independent board of directors and the tax avoidance practice. The study also documented that the corporate governance of any organization had a much prominent role during higher level of tax avoidance activity. This carries its weightage that the independence of the directors is largely dependent upon the level of tax avoidance activity. However previous studies have argued that in some cases tax avoidance might be beneficial for the shareholders, due to which independent directors can increase the tax avoidance activity, (Koverman & Velte, 2019). Additionally, the study by Koverman and Velte (2019) also mandated that the relationship between independent directors and tax avoidance is also conditional to the firm's

financial position. The study of Koverman and Velte (2019) highlighted the fact that the sample of their study was based upon US. They emphasized to carry research on non US samples. Importantly, the US accounting literature is different from other countries, due to the differences between International financial reporting standards (IFRS) and US GAAP accounting. Therefore, it is reasonable to further explore the area how the independent directors influence the tax avoidance from a developing country Pakistan's perspective. Pakistan has adopted the International financial reporting standards (IFRS) and has a different corporate governance structure on the basis of code of corporate governance (Ashraf & Ghani, 2005). To address the research gap, the study carries its investigation. The following hypothesis has been formulated;

H5: *The likelihood of increasing independent directors leads to the increase of tax avoidance.*

Audit Quality and tax avoidance

The previous literature has mentioned both internal and external audits as the control mechanisms of corporate governance along with the directorship (Anderson, 1993). One of the watchdogs of the manager's stance over the firm's operations and how they maintain their internal controls is through audit practices. It's the external audit mostly that gives an opinion if the company has followed the compliances and whether the financial statements are kept properly or not. Through audit engagement practices, they also develop a perspective on how the firm is managing its taxation. The audit practice is considered to be an important metric to provide the true and fair position of the firm to the stakeholders. The audit practice is subject to it audit quality. The study by Gaaya et al. (2017) found that the Tunisian family firms engage in tax avoidance; however the audit quality curbs this activity. The audit quality was measured through the proxy of dummy variable taking the value 1 if the external audit is done by one of the big 4 firms and 0 otherwise. The big 4 firms are Deloitte, Ernest & Young, KPMG, and PricewaterhouseCoopers. The study by Gaay et al. (2017) is limited to the sample of Tunisian firms from the period from 2008 to 2013. The year 2011 is considered to be a year of revolution for Tunisia. Therefore, it can be argued that the results from the Tunisian sample cannot be generalized to other countries. Contrary to that there also has been a critique of ongoing audit practices and their tendency to influence corporate tax avoidance. The previous researchers have also criticized the big 4 audit firms in their audit and tax services, which in many cases can also provide tax avoidance services to the clients (Sikka & Hampton, 2005). The audit frameworks are different in the developing economy of Pakistan; they also have different institutional settings. Therefore this study also investigates how the big4 audit affects tax avoidance in Pakistan. It is expected that since Pakistan has gone through different audit reforms (Ashraf & Ghani 2005) therefore, the big 4 audit firms would mitigate the tax avoidance practice of the firms. The following hypothesis has been formulated;

***H6**: There is a negative relationship between the Big4 and tax avoidance.*

The audit fee has also been considered to be a part of audit quality. There have been studies which looked into how the audit fee affects the tax avoidance of the firms. In one of the studies, Kraft and Lopatta (2016) find no significant relationship between audit fees and corporate tax avoidance. It was concluded that audit fees represent the auditor's true efforts to make sure to present true and fair financial reports. Marzuki and Syukur (2021) analyzed the listed companies in Thailand and found a significant negative relationship between audit fees and tax aggressiveness, indicating that higher audit fees reduce tax aggressiveness. On the other hand the tax avoidance since it brings risks; therefore it has a cost such as higher audit fee (Beladi et al., 2018). It can be argued that tax avoidance has its risks for the audit firm therefore it is expected that the audit firms take higher fee to compensate for the risks involved. On the other hand, the organization also share the risks concerning to tax avoidance, therefore they are also equally responsible. Ashraf and Ghani (2005) documented that audit fee has been a concern in Pakistan. Since the audit fee affects the audit quality. However there is a limitation in this area concerning developing countries, therefore this study also looks to address this research gap with the context to Pakistan which has different audit framework. The following hypothesis has been formulated;

***H**7: The higher external audit fee causes more tax avoidance.*

While the study is based on the corporate governance mechanisms and how it impacts corporate tax avoidance, nevertheless, there are possible other variables that are based on the literature (Armstrong et al., 2015; Dyreng et al., 2010; Gupta & Newberry, 1997; Huang et al., 2018; Lim 2011; Rego, 2003; Zimmerman, 1983), can have a significant influence on the corporate tax avoidance. For example, the larger firms, denoted by firm size normally pay higher taxes. The firm age is also influential in tax avoidance. Similarly the leverage and liquidity also determine the tax avoidance strategies. These variables are controlled and added within the model with reference to the previous tax research (Alkurdi & Mardini, 2020; Ginesti et al., 2020; Taylor & Richardson, 2012).

These potential variables are taken as control variables in the current study, they also represent firm characteristics. For an instance, the study by Zimmerman (1983) examined the effects of firm size on taxation. The findings showed that large US firms had higher tax rates. The effective tax rates are largely influenced by the size of the firm. The large firms also have higher effective tax rates. On the contrary there are arguments that the large firms denoted by firm size could have larger access to resources which they can use to decrease their effective tax rates (Ginesti et al., 2020). This study looks forward to analyze how the firm size affects the tax avoidance of listed firms of Pakistan. This study formulates the following hypothesis;

***H8:** There is a negative association between firm size and tax avoidance.*

The study by Ginesti et al. (2020) also took liquidity as a control variable. The study found a significantly negative relationship between liquidity and effective tax rate. Thus indicating that firms which larger liquidity tends to avoid more taxation. On the contrary the study by Chan et al. (2016) found that firms which have higher cash engage in less tax avoidance activity. Since the firms with higher liquidity can easily pay their taxes which are also current liabilities, due to this there would be less tax avoidance. Also the firms which have higher liquidity would be less financially constrained; they would be able to pay their tax liabilities more promptly. It is to be noted that the study of Ginesti et al. (2020) is based upon the Italian firms, where the institutional settings are much more different. Therefore it is important to also see how the liquidity of the firms affects the tax avoidance where the institutional settings are much different (Sheikh et al., 2018). To formally test the impact of liquidity on tax avoidance, this study develops the following hypothesis;

H9: *There is a negative association between liquidity and tax avoidance.*

The study by Ginesti et al. (2020) examined firm-level tax avoidance. The study also took leverage as the control variable. There was a significant negative relationship between leverage and effective tax rate. Thus, indicating that the firms with high leverage are more likely to use interest as a tax shield to reduce their tax liabilities. However it should be noted that higher leverage also has its costs in the form of higher interest rates. Therefore, the firms often have to trade off the costs of the leverage against its benefits. There is a limitation in the tax literature in this area concerning to the developing countries, i.e. Pakistan. Therefore this study also examines the leverage and forms the following hypothesis;

H10: *There is a positive association between leverage and tax avoidance.*

Pfaffermayer et al. (2013) found a negative relation between firm age and debt ratio, which shows that older firms are less dependent upon debts than younger firms. Furthermore, the final findings revealed a positive interaction between firm age and corporate taxation. This shows that the debt ratios of the firms which are older are more affected by a cut in the corporate tax rates, as compared to the younger firms. This also provides empirical evidence that corporate taxation and its effects on debts change during the age of a firm. The older firms are able to develop a better credit history, which they can use for their advantage. On the other hand, the study by Alkurdi and Mardini, (2020) documented that older firms have a far greater reputational risk. Therefore the older the firm, the less tax avoidance it would do. This motivates the current study to further examine the firm age concerning tax avoidance in the listed firms of Pakistan. In Pakistan the business structures are different, most firms are dominated by family ownership and business groups (Marwat et al., 2021). The following hypothesis has been formulated;

H11: *There is a negative association between firm age and tax avoidance.*

Research design

Data and sample selection

For the empirical analysis, the study uses the public limited firms listed on the Pakistan stock exchange (PSX). The sample consists of 295 non-financial firms listed at the Pakistan stock exchange, (PSX) from the years 2016 to 2020. The mentioned sample size is chosen based on the data availability and resources (Hair et al., 2020). Furthermore the sample size is taken consistent with the previous tax research, to include all the non-financial firms which have complete financial information, (Law & Mills, 2017). The sample size should include corporate governance mechanism and tax data of the listed firms, which is important for the analysis (Minnick & Noga, 2010). Pakistan being a developing country has a distinctive corporate governance and institutional setting than other countries (Awais, Iftikhar, Thas Thaker, Bhatti, & Mohsin, 2022; Sheikh et al., 2018).

Therefore, this study includes the 295 listed firms which represent the distinctive corporate governance structure and tax management of Pakistan. The 295 listed firms are useful in the sample because they contain not only complete financial information; equally important the listed firms such as these have a better access to tax planning. The five year period provides a reasonable tax analysis (Kirkpatrick & Radicic, 2020). The reason for the exclusion of financial firms is that their business models are different of non-financial firms. Fama and French (1992) asserted that they excluded financial firms because of the reason that the higher leverage that is considered normal for such firms probably wouldn't imply the same meaning for the other non-financial firms, where in that case a higher leverage is more likely indicates financial distress. The financial and non-financial firms have different inferences. For example, the estimated coefficients are significantly negative for financials and vice versa, (Foerster & Sapp, 2005).

Equation

In line with the study the following regression equation has been formulated;

$$TAXAVOID_{i,t} = \beta_0 + \beta_1 BODOUT_{i,t} + \beta_2 EXP_{i,t} + \beta_3 COMP_{i,t} + \beta_4 POLC_{i,t} + \beta_5 BIG4_{i,t} + \beta_6 AUDFE_{i,t} + \beta_7 INST_{i,t} + \beta_8 LEV_{i,t} + \beta_9 AGE_{i,t} + \beta_{10} SIZE_{i,t} + \beta_{11} LIQ_{i,t} + \varepsilon_{i,t}$$

Variable measurement

The measurement and the operationalization of the variables in the study are as follow:

Corporate Governance variables	Measurement	Sources
BODOUT (Board Outside Directors)	It's a variable that shows the number of independent directors (iNED) in the board of a firm. It's measured as the proportion of independent directors to the board size, (Andres	Annual reports of public limited firms

	et al., 2017).	
COMP (compensation of non-executive directors)	It is measured by taking the log of non-executive director (NEDs) total compensation (salary, bonus, other annual benefits, equity based pay, severance pay) from the entity (Belcredi & Bozzi, 2019).	Annual reports of public limited firms
EXP(Board Expertise)	It represents board expertise, an indicator dummy variable that is one if there is an accounting or financial expert on the board, and is zero otherwise (Doo & Yoon, 2020).	Annual reports of public limited firms
POLC (political connections/affiliation)	To measure the political connections/affiliation, the study calculates a dummy variable that is equal to one if the firm is politically connected and 0 otherwise (Boubakri et al., 2008; Fan et al., 2007: Joni et al., 2020).	The information regarding the politically connected data is to be hand collected from company's annual report, company website and government data sources.
BIG4 (Audit Quality)	It denotes the audit quality, measured by the dummy variable if the audit firm is among the big4, its value is one and zero otherwise (Gaaya et al., 2017).	Annual reports of public limited firms
AUDFE (Audit Quality)	It denotes the audit quality measured by the audit fee. It's measured by the statutory audit fees to the amount of sales (Sattar et al., 2020; Waweru 2014).	Annual reports of public limited firms
INST (Institutional Shareholding)	It represents the institutional share ownership in the firms. It is measured by the ratio of the number of shares held by the institutional owners to the total number of shares outstanding (Chung & Zhang, 2011).	Annual reports of public limited firms, e.g. pattern of shareholding

Control variables	Measurement	Sources
LEV (Leverage)	It indicates leverage of the firm. It's the firm characteristics variable. It's measured as the ratio of the total debt to total assets (Doo & Yoon 2020).	Annual reports of public limited firms.
Age (firm age)	It's also one of firm characteristics. This study defines the firm age since the year of its finding (Badulescu et al., 2018).	Annual reports of public limited firms.
Size (firm size)	The natural logarithm of total assets; SIZE is measured as the natural logarithm of total assets (Doo & Yoon 2020; Zimmerman, 198).	Annual reports of public limited firms.
LIQ (Liquidity of a firm)	The LIQ denotes the liquidity of the firm; it is measured by using the current ratio, current assets divided by current liabilities (Samo & Murad, 2019).	Annual reports of public limited firms.

Tax rationalization	Measurement	Sources
TAXAVOID (Tax avoidance)	1. Accounting ETR= tax expense divided by pretax income (Dyreng et al., 2008; Ginesti et al., 2020;Taylor & Richardson, 2012; Wang et al., 2019) 2. Cash ETR= Cash Taxes Paid divided by Pre-tax Income (Dyreng et al 2008; Taylor & Richardson, 2012)	Annual reports of public limited firms.

Empirical Results

Descriptive Statistics

Table 1 gives the descriptive statistics of the dependent variables, ETR and CASHETR, independent variables BODOUT, EXP, CMPN, POLC, BIG4, AUDFE and, INST, along with control variables, LEV, AGE, SIZE and LIQ. Descriptive statistics provide an understanding of the data (Hair et al 2020). The descriptive statistics show that the dependent variables ETR and CASHETR have mean (standard deviation) of 0.223 (0.238) and 0.297 (0.482) respectively. The data shows that on average Pakistani public limited firms have acceptable levels of corporate tax avoidance. Similarly, the mean (standard deviation) of the independent variables is BODOUT, EXP, COMP, POLC, BIG4, AUDFE and INST is 0.215 (0.127), 0.863 (0.343), 6.335 (0.805), 0.305 (0.460), 0.487 (0.500), 0.004 (0.041) and 0.109 (0.170) respectively. In addition to this the control variables LEV, AGE, SIZE and LIQ have mean (standard deviation) of 0.647 (0.879), 1.574 (0.205), 8.156 (1.410) and 2.049 (9.784) respectively. In almost all of the variables, there is a reasonable amount of stability between the mean and median, the variation is also little, which shows that data confirm the normality of distributions.

Table 1

Descriptive Statistics

Variable	N	Mean	St.Dev	Min	Median	Maximum
ETR	1475	0.223	0.238	0	0.199	1
CASHETR	1475	0.297	0.482	0	0.198	1
AGE	1475	1.574	0.205	0.602	1.579	1.892
COMP	1475	6.335	0.805	3.327	6.556	9.167
BODOUT	1475	0.215	0.127	0	0.142	0.75
EXP	1475	0.863	0.343	0	1	1
POLC	1475	0.305	0.460	0	0	1
INST	1475	0.109	0.170	0	0.075	5.015
BIG4	1475	0.487	0.500	0	0	1
AUDFE	1475	0.004	0.041	0	0	1.126
LEV	1475	0.647	0.879	0.009	0.542	14.097
LIQ	1475	2.049	9.784	0	1.15	257.929
SIZE	1475	8.156	1.410	0.399	8.085	11.04

Correlation

The table.2 below shows the Pearson correlation results. The size of the correlation coefficient is used to quantitatively measure the power of association between two or more variables, (Hair et al., 2020). A significant correlation ($p<.05$) is found between ETR and BODOUT, COMP, POLC, BIG4, AUDF, AGE, LEV and LIQ. Secondly, significant correlation ($p<.05$) has been found between CASHETR and BODOUT, BIG4, AUDFE, LEV and LIQ respectively. In addition, all the correlations are of moderate level between the

independent variables, therefore showing a lack of multi-collinearity. The statisticians have adopted a rule of thumb that the correlation coefficient between two independent variables, which is greater than +/- 0.60, is a sign of potential multi-collinearity (Hair et al., 2020).

Table 2

Pearson's Correlation

	ETR	CASHETR	EXP	BODOUT	COMP	INST	POLC	BIG4	AUDFE	AGE	LEV	LIQ	SIZE
ETR	1												
CASHETR	0.649*	1											
EXP	0.031	-0.006	1										
BODOUT	-0.065*	-0.105*	0.067*	1									
COMP	-0.067*	-0.038	-0.008	0.051*	1								
INST	-0.004	0.017	0.035	0.117*	-0.208*	1							
POLC	0.094*	0.03	0.116*	0.097*	0.075*	0.080*	1						
BIG4	0.103*	0.053*	0.204*	0.123*	-0.080*	0.131*	0.160*	1					
AUDFE	-0.217*	-0.192*	-0.110*	-0.056*	0.059*	-0.166*	-0.180*	-0.332*	1				
AGE	0.081*	0.038	0.001	0.032	-0.012	0.031	0.076*	0.027	-0.044	1			
LEV	-0.178*	-0.194*	-0.082*	-0.017	0.013	0.059*	0.012	-0.105*	-0.058*	-0.107*	1		
LIQ	0.276*	0.260*	0.138*	0.033	-0.062*	0.02	0.084*	0.228*	-0.219*	0.034	-0.604*	1	
SIZE	-0.012	0.001	0.013	-0.005	0.021	0.014	-0.024	-0.036	0.006	-0.014	0.022	0.05	1

* denotes significant at the 5% or lower level

Regression Analysis

The regression analysis examines the magnitude and the type of relationship between two or more variables, to infer causation (Hair et al., 2020). The two tax avoidance measures that are taken in the study are ETR and CASHETR. The lower value of ETR and CASHETR indicate an increase in tax avoidance, (McGuire et al., 2012). The dependent variables ETR and CASHETR are winsorized at a one percent level to control for the potential outliers. The largest value is 1 and the smallest value is 0, (Taylor & Richardson, 2012). The panel regression techniques were run in line with the related tax literature (Taylor & Richardson, 2012). The fixed and random effects were applied. The results of the Hausman test (table 3) were insignificant which indicated that the random effects model is appropriate 0.276, (p >0.05). Based on the Hausman test, the random effects model was used. Table 4 shows that the F statistics is significant, which clearly shows that the model is appropriate and the independent variables jointly influence the dependent variable. The BODOUT is significant, which shows that independent directors have not only significant influence but also increase corporate tax avoidance activity, in line with the previous literature of Lanis et al (2019) stated that the independence of the directors is largely influenced by their reputation. The independent directors can be linked towards more tax avoidance or less, which is largely based upon their unique reputation. The results also support the previous study's findings that higher number of independent directors on the board increases the tax avoidance activity (Mclure et al., 2018). It can be argued that since the tax avoidance can also have potential benefits for the shareholders, due to this the independent directors can increase the tax avoidance (Kovermann & Velte, 2019). Therefore, the result provides support to the hypothesis, H5. The insignificance of other variables, such as board expertise is coherent with Guner et al. (2008) and Lanis et al. (2021). The board's politically connectivity had an insignificant relationship with ETR. The findings didn't support the previous study, (Lin et al 2018). However the study by Lin et al. (2018) mandated that the political connected boards facilitated the tax avoidance of the firms, especially where the political environment is strong. The results didn't support the hypothesis; H4**.** Similarly, there was an insignificant relationship of institutional shareholding with the ETR. The findings weren't in line with the previous study of Khan et al. (2017). The study by Khan et al. (2017) also clarified that equity incentive is a driving force between the institutional shareholdings relationship with tax avoidance. Therefore, the insignificant relationship could be due to the absence of other factors, such as equity factor. The results didn't support the hypothesis; H2. The lack of significance for the other corporate governance variables is not consistent with the view of agency theory (Fernandes, 2008).

The AUDFE variable has a significant negative relation with ETR. This is not consistent with finding of Marzuki and Syukur (2021). The results indicate higher the external audit fee; the more corporate tax avoidance activity will exist in firms. The findings of the study are in line with previous empirical findings of Donohoe and Knechel (2014). These results support the hypothesis; H7. In contrast to the other audit quality variable, Big4 has an insignificant

relationship with ETR. Therefore, H6 is not supported. The control variable liquidity has a significant positive relationship with ETR. This indicates that firms with higher cash engage in less tax avoidance activities. The study's finding support the previous study which found that the firm's which have cash constraints engage in higher tax avoidance (Chan et al., 2016). This result empirically supports the hypothesis; H9. The leverage has a significant negative relationship with the effective tax rate. This shows that higher the leverage the more tax avoidance activity would be undertaken by firms. The firms use leverage to minimize their taxation through tax shields, the result is supported by the previous study (Taylor & Richardson, 2012). The results support the hypothesis, H10. The firm age also has a significant positive relationship with ETR. This positive relationship is also supported by the previous, which mandated that older firms engage in less tax avoidance activity due to the risk of losing their reputation, (Alkurdi & Mardini, 2020). The hypothesis; H11 is supported. The firm size had an insignificant relationship with the ETR. This insignificant relationship is not consistent with the previous study, (Ginesti et al., 2020). Therefore, hypothesis; H8 is not supported.

Table 5 and 6 show the results for the second dependent variable CASHETR, the panel regression techniques were applied. Based on the Hausman test (table 5) which was insignificant at 0.207 ($p > 0.05$), the Random effects model was used. The Random effect model takes the constants for every section as random parameters (Asteriou & Hall, 2021). The lower value of Cash ETR implies an increase in tax avoidance, (Ginesti et al., 2020). Table 6 shows that corporate governance mechanism variable BODOUT has a significant negative relationship with CASHETR ($p < 0.05$) respectively. The increase in independent directors in the board decreases Cash ETR, which means there is an increase of tax avoidance activity. This positive association of independent directors and tax avoidance is consistent with the findings of Mclure et al. (2018). The findings also support the hypothesis, H5. The insignificant relationship of politically connected boards with the Cash ETR is not consistent with the findings of Lin et al. (2018). Lin et al. (2018) also clarified that the politically connected boards are more influential where the political environment of the country is strong. Therefore, the results didn't support the hypothesis, H4. The institutional shareholding also had an insignificant relationship with the Cash ETR. The insignificant results are not consistent with the study of Khan et al. (2017). The results didn't support the hypothesis, H2. The other corporate governance mechanism variables are insignificant. Regardless with little support, the study still provides insights into how the different corporate governance mechanisms can affect tax management in which the companies are also adept at tax avoidance (Minnick & Noga, 2012).

The results also show that there is a significant negative relationship of AUDFE with the Cash ETR, (($p < 0.05$). This is also supported by the previous study that higher audit fee is associated with higher tax avoidance activity (Donohoe & Knechel, 2014). The results support the hypothesis, H7 respectively. The other audit quality measure, the big4 had an insignificant relationship with Cash ETR. It is not consistent with the findings of the previous

study Gaaya et al. (2017). Therefore, H6 is not supported. The liquidity has a significant positive relationship with Cash ETR. This indicates that the firms with higher cash are able to make more tax payments. This is supported by the previous study of Chan et al.(2016). Thus, the H9 is well supported in the results. Moreover, the results also showed that leverage has a significant negative relationship with Cash ETR. The firm's uses the debt as a tax shield. This is also supported by the previous study (Taylor & Richardson, 2012). The findings indicate that higher leverage causes more tax avoidance. The results provide support to H10**.** The firm age had insignificant relationship with the Cash ETR. This insignificance can also be explained by the limitations of the cash ETR (Hanlon & Heitzman, 2010). The firm size had insignificant relationship with the Cash ETR. The insignificant relationship was not in line with the results and findings of the previous tax literature (Ginesti et al., 2020). The insignificant relationship of firm size and age doesn't support the H8 and H11 respectively. Taken as a whole, the regression results do provide empirical support, though not fully, that the corporate governance mechanisms does influences the tax avoidance of the public limited firms of Pakistan.

Table 3

Dependent Variable: ETR- Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob
Cross-section random	13.258	11	0.276

Table 4

Dependent Variable: ETR –Random effects model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.224	1.314	2.453	0.014
BODOUT	-1.892	0.639	-2.959	0.003
EXP	-0.216	0.277	-0.781	0.434
POLC	0.2978	0.199	1.493	0.135
INST	-0.121	0.118	-1.030	0.303
AUDFE	-0.731	0.138	-5.264	0.000
BIG4	-0.004	0.198	-0.023	0.981
COMP	-0.166	0.110	-1.499	0.134
LIQ	1.308	0.271	4.815	0.000
LEV	-1.022	0.395	-2.585	0.009
AGE	0.760	0.460	1.653	0.098
SIZE	0	0	0.326	0.743
R squared	0.121			
F statistics	12.626			
Prob	0.000			

Table 5
Dependent Variable: Cash ETR- Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob
Cross-section random	14.480	11	0.207

Table 6
Dependent Variable: Cash ETR – Random effects model

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	4.891	1.536	3.185	0.002
BODOUT	-3.250	0.760	-4.275	0.000
EXP	-0.375	0.323	-1.161	0.246
POLC	-0.045	0.233	-0.193	0.847
INST	0.101	0.138	0.734	0.463
AUDFE	-0.873	0.162	-5.382	0.000
BIG4	-0.238	0.232	-1.029	0.304
COMP	-0.042	0.130	-0.327	0.744
LIQ	1.337	0.322	4.155	0.000
LEV	-1.643	0.467	-3.521	0.000
AGE	0.213	0.531	0.400	0.689
SIZE	0.000	0.000	0.531	0.595
R Squared	0.112			
F Statistics	12.133			
Prob (FStatistics)	0.000			

Conclusion

This paper examined the role of corporate governance mechanisms on the corporate tax avoidance rationale of the publicly listed 295 non-financial firms of Pakistan for the years 2016 to 2020. The results supported the hypothesis in line with the previous literature that the corporate governance mechanism does impact the corporate tax avoidance rationale. Although, there was weak support for the hypothesis, however since the corporate governance mechanism is a broad area, its important measures such as the board independence in the form of the number of independent directors and the audit fee, their empirical significance puts a large weightage on the governance and tax literature. The paper

provides clear insights into how the independent directors through their distinct roles influence the corporate governance practice towards tax management in a developing country's perspective. The empirical significance of the external audit fee also provides cognizance related to its importance in tax management. There are policy implications which this study contributes. The tax authorities, when devising tax codes, should make a thorough analysis with respect to potential loopholes in the tax structure and how they could cause tax avoidance. Importantly, some rules of tax are explicitly targeted at corporate governance structure of the firms. To encourage or discourage a certain corporate conduct, the tax rules work as a tool kit. Often times the tax codes are constructed without taking the corporate governance into account, (Owens, 2008). The tax codes should be designed by also looking at their possible impact on the corporate governance matters, such as compensation, audit etc. Furthermore, this study provides the important factors of corporate governance that can affect the tax avoidance to the policy and law makers. For example, the independent directors have the possibility to increase the tax avoidance. Moreover, the higher audit fee can potentially increase the tax avoidance activity as well. Therefore, the regulators should look closely in these areas to make the tax enforcement better. Importantly, the code of corporate governance should be focused by looking at these issues.

The study was carried out on the basis of theory of tax avoidance, (Stiglitz, 1985). According to the theory the tax avoidance principles are very strong. It is relatively difficult to come up with complete tax avoidance analysis. The tax liabilities are often reduced by shifting the tax burden on the others, through transactions. Importantly, Stiglitz (1985) recommended that tax avoidance could be better understood by examining the terms and conditions of the transactions. The policy makers should devise effective policies that make the financial disclosures of the firm's public particularly related to the different transactions.

Even though the study has come up with significance, nevertheless it provides mixed results due to the reason that some of the corporate governance variables are insignificant. Therefore, the paper has its limitation, such as other corporate governance mechanisms that can potentially impact corporate tax avoidance which can be included in future studies. Secondly, the audit quality measure, audit fee, is a measure for the statutory external audit. There is a study by McGuire et al. (2012) documented that the firms purchasing tax services from their external audit firms engage more in corporate tax avoidance activities. In this regard future research can be carried, out in which firms purchasing tax services analogous to external audit and how it affects their taxation, with the perspective of different corporate governance mechanisms.

References

Addison, S., & Mueller, F. (2015). The dark side of professions: the big four and tax avoidance. *Accounting, Auditing & Accountability Journal*, *28*(8), 1263–1290. doi:10.1108/aaaj-01-2015-1943

Alkurdi, A., & Mardini, G. H. (2020). The impact of ownership structure and the board of directors' composition on tax avoidance strategies: empirical evidence from Jordan. *Journal of Financial Reporting and Accounting*, *18*(4), 795-812.

Anderson, D., Francis, J. R., & Stokes, D. J. (1993). Auditing, directorships and the demand for monitoring. *Journal of Accounting and Public Policy*, *12*(4), 353–375. doi:10.1016/0278-4254(93)90014-3

Asterio, D.,& Hall, S. G. (2021). *Applied econometrics*. Red Globe Press. Fourth edition.

Ashraf, J., & Ghani, W. I. (2005). Accounting development in Pakistan. *The International Journal of Accounting*, *40*(2), 175–201. doi:10.1016/j.intacc.2005.01.010

Atwood, T. J., Drake, M. S., Myers, J. N., & Myers, L. A. (2012). Home country tax system characteristics and corporate tax avoidance: International evidence. *The Accounting Review*, *87*(6), 1831-1860.

Awais, M., Iftikhar, U, Aziz, S., Thas Thaker, M. A. B., Bhatti, O. K., & Mohsin, M. (2022). Monitoring and Efficiency in Governance: A Measure for Sustainability in Islamic Banking Industry. *Frontiers in Psychology,* 2319

Badulescu, A., Badulescu, D., Saveanu, T., & Hatos, R. (2018). The Relationship between Firm Size and Age, and Its Social Responsibility Actions—Focus on a Developing Country (Romania). *Sustainability*, *10*(3), 805. doi:10.3390/su10030805

Beladi, H., Chao, C. C., & Hu, M. (2018). Does tax avoidance behavior affect bank loan contracts for Chinese listed firms?. *International Review of Financial Analysis*, *58*, 104-116.

Best, M. C., Brockmeyer, A., Kleven, H. J., Spinnewijn, J., & Waseem, M. (2015). Production versus Revenue Efficiency with Limited Tax Capacity: Theory and Evidence from Pakistan. *Journal of Political Economy, 123*(6*), 1311–1355.* doi:10.1086 / 683849

Boubakri, N., Cosset, J.C., & Saffar, W. (2008). Political connections of newly privatized firms. *Journal of Corporate Finance, 14*(5), 654–673. doi:10.1016/j.jcorpfin.2008.08.003

Bozzi, S, & Belcredi, M. (2019). Remuneration of independent directors: Determinants and policy implications [Special issue]. *Corporate Ownership & Control*, *17*(1), 278-291.http://doi.org/10.22495/cocv17i1siart10

Bukhari, H., & Haq, I. (2020). Tax Reforms in Pakistan: Historic and Critical View. PIDE https://www.pide.org.pk/pdf/Books/Tax-Reforms-in-Pakistan-Historic-and-Critical-View.pdf

Chan, K. H., Mo, P. L. L., & Tang, T. (2016). Tax avoidance and tunneling: Empirical analysis from an agency perspective. *Journal of International Accounting Research*, *15*(3), 49-66.

Chennels, L. (1997). The Windfall Tax. *Fiscal Studies*, *18*(3), 279–291.

Chung, K. H., & Zhang, H. (2011). Corporate Governance and institutional ownership. *The Journal of Financial and Quantitative Analysis*, *46*(1), pp. 247-273.

Cobham, A., & Jansky, P. (2018). Global distribution of revenue loss from corporate tax avoidance: re-estimation and country results. *Journal of International Development*, *30*(2): 206–232.

Christopher et al. (2015). Corporate governance, incentives, and tax avoidance. *Journal of Accounting and Economics*, *60*(1), 1-17.

de Andrés, P., Arranz-Aperte, L., & Rodriguez_Sanz, J. A. (2017). Independent versus non-independent outside directors in European companies: Who has a say on CEO compensation?. *BRQ Business Research Quarterly*, *20*(2), 79-95.

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

Desai, M. A., & Dharmapala, D. (2009). Earnings Management, Corporate Tax Shelters, and Book-Tax Alignment. *National Tax Journal*, *62*(1), 169–186. http://www.jstor.org/stable/41790634

Donohoe, M. P., & Knechel, W. R. (2014). Does Corporate Tax Aggressiveness Influence Audit Pricing? *Contemporary Accounting Research*, *31*(1), 284–308. doi:10.1111/1911-3846.12027

Doo, S., & Yoon, S. S. (2020). Tax-motivated income shifting and board structure: Evidence from Korean business groups. *Journal of Contemporary Accounting & Economics*, *16*(3), 100221, https://doi.org/10.1016/j.jcae.2020.100221.

Drake, K., Hamilton, R., & Lusch, S. J. (2020). Are declining effective tax rates indicative of tax avoidance? Insight from effective tax rate reconciliations. *Journal of Accounting and Economics*, *70*(1), 101317. doi:10.1016/j.jacceco.2020.101317

Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2008). Long-run corporate tax avoidance. *The Accounting Review*, *83*(1), 61–82.

Dyreng, S. D., Hanlon, M. & Maydew, E. L. (2010). The effects of executives on corporate tax avoidance. *The Accounting Review*,*85*(4): 1163–1189.

Dyreng, S. D., Jacob, M., Jiang, X., & Muller, M. (2019). Tax incidence and tax avoidance. *Contemporary accounting research.* https://doi.org/10.1111/1911-3846.12797

Fama, E. F., & French, K. R. (1992). The cross-section of expected stock returns. *The Journal of Finance, 47*(2), 427-465.

Fama, E. F., & Jensen, M. C. (1983). Agency problems and residual claims. *The journal of law and Economics, 26*(2), 327-349.

Fan, J., Wong, T., & Zhang, T. (2007). Politically connected CEOs, corporate governance, and Post-IPO performance of China's newly partially privatized firms. *Journal of Financial Economics*, *84*(2), 330–357. doi:10.1016/j.jfineco.2006.03.008

Faraz, N., Khalid., M., & Nasir., M. (2021) "Measuring VAT Gap in Pakistan: A Top-Down Analysis", *PIDE Working Paper,* PIDE, Islamabad.

Fernandes, N. (2008). EC: Board compensation and firm performance: The role of "independent" board members. *Journal of Multinational Financial Management, 18*(1), 30–44. doi:10.1016/j.mulfin.2007.02.003

Foerster, S. R., & Sapp, S. G. (2005). Valuation of financial versus non-financial firms: a global perspective. *Journal of International Financial Markets, Institutions and Money*, *15*(1), 1-20.

Gaaya, S., Lakhal, N., & Lakhal, F. (2017). Does family ownership reduce corporate tax avoidance? The moderating effect of audit quality. *Managerial Auditing Journal*, *32*(7), pp. 731-744.

Ginesti, G., Ballestra, L. V., & Macchioni, R. (2020). *Exploring the Impact of Firm‐level Legality on Tax Avoidance. European Management Review, 17*(2), 499-514 .doi:10.1111/emre.12382

Goh, L., & Gupta, A. (2016). Remuneration of non-executive directors: Evidence from the UK. *The British Accounting Review*, *48*(3), 379-399.

Guenther, D. A., Matsunaga, S. R., & Williams., B. M. (2013). Tax avoidance, tax aggressiveness, tax risk and firm risk. University of Oregon. *Working paper. Available at https://business. illinois. edu/accountancy/wp-content/uploads/sites/12/2014/10/Tax-2013-Guenther. pdf.*

Gupta, S., & Newberry, K. (1997). Determinants of the variability in corporate effective tax rates: Evidence from longitudinal data. *Journal of accounting and public policy*, *16*(1), 1-34.

Güner, A. B., Malmendier, U., & Tate, G. (2008). Financial expertise of directors. *Journal of financial Economics*, *88*(2), 323-354.

Hair Jr., J., Page, M., & Brunsveld, N. (2020). *Essentials of Business Research Methods* (4th ed.). Routledge. https://doi.org/10.4324/9780429203374

Hanlon, M. & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and* Economics, *50*(2–3): 127–178.

Hansen, D., Crosser, R., & Laufer, D. (1992). Moral ethics v. tax ethics: The case of transfer pricing among multinational corporations. *Journal of Business Ethics*, *11*(9), 679–686.

Hope Sr, K. R. (2009). Capacity development for good governance in developing countries: some lessons from the field. *Intl Journal of Public Administration*, *32*(8), 728-740.

Huang, W., T. Ying & Y. Shen, (2018), Executive cash compensation and tax aggressiveness of Chinese firms". *Review of Quantitative Finance and Accounting*, *51*(4):1151–1180.

Huseynov, F., & Klamm, B. K. (2012). Tax avoidance, tax management and corporate social responsibility. *Journal of Corporate Finance*, *18*(4), 804–827. doi:10.1016/j.jcorpfin.2012.06.00

Joni, J., Ahmed, K., & Hamilton, J. (2020). Politically connected boards, family and business group affiliations, and cost of capital: Evidence from Indonesia. *The British Accounting Review*, *52*(3), 100878. doi:10.1016/j.bar.2019.100878

Kim, C., & Zhang, L. (2016). Corporate political connections and tax aggressiveness. *Contemporary Accounting Research*, *33*(1), 78-114.

Kirkpatrick, A. K., & Radicic, D. (2020). Tax Planning Activities and Firm Value: A Dynamic Panel Analysis. In *Advances in Taxation*. Emerald Publishing Limited.

Kong, Y., Famba, T., Chituku-Dzimiro, G., Sun, H., & Kurauone, O. (2020). Corporate governance mechanisms, ownership and firm value: evidence from listed Chinese firms. *International Journal of Financial Studies*, *8*(2), 20.

Kovermann, J., & Velte, P. (2019). The impact of corporate governance on corporate tax avoidance — A literature review. *Journal of International Accounting, Auditing and Taxation*, *36*, 100270.

Khan, M., Srinivasan, S., & Tan, L. (2017). Institutional ownership and corporate tax avoidance: New evidence. *The Accounting Review*, *92*(2), 101-122.

Khurana, I. K., & Moser, W. J. (2013). Institutional shareholders' investment horizons and tax avoidance. *The Journal of the American Taxation Association, 35*(1), 111-134.

Kraft, A., & Lopatta, K. (2016). Auditor fees, discretionary book-tax differences, and tax avoidance. *International Journal of Economics and Accounting*, *7*(2), 127-155. doi: 10.1504/IJEA. 2016.078297.

Lanis, R., Richardson, G., Liu, C., & McClure, R. (2019). The impact of corporate tax avoidance on board of directors and CEO reputation. *Journal of Business Ethics*, *160*(2), 463-498.

Lanis, R., Richardson, G., Govendir, B., & Pazmandy, G. (2021). The effect of board of directors' expertise and tax avoidance on corporate debt. *Accounting & Finance*, *61*(3), 4475-4511.

Law, K. K., & Mills, L. F. (2017). Military experience and corporate tax avoidance. *Review of Accounting Studies*, *22*(1), 141-184.

Lin, K. Z., Mills, L. F., Zhang, F., & Li, Y. (2018). Do political connections weaken tax enforcement effectiveness?. *Contemporary Accounting Research*, *35*(4), 1941-1972.

Marwat, J., Rajput, S. K. O., Dakhan, S. A., Kumari, S., & Ilyas, M. (2021). Tax avoidance as earning game player in emerging economies: evidence from Pakistan. *South Asian Journal of Business Studies.* 10.1108/SAJBS-10-2020-0379

Marzuki, M. & Syukur, M. (2021). The effect of audit fees, audit quality and board ownership on tax aggressiveness: evidence from Thailand. *Asian Review of Accounting, 29*(5), 617-636. https://doi.org/10.1108/ARA-11-2020-0179

McClure, R., Lanis, R., Wells, P., & Govendir, B. (2018). The impact of dividend imputation on corporate tax avoidance: The case of shareholder value. *Journal of Corporate Finance*, *48*, 492-514.

McGuire, S. T., Omer, T. C., & Wang D. (2012). Tax Avoidance: Does Tax-Specific Industry Expertise Make a Difference? *The Accounting Review*, *87*(3), 975–1003.

Minnick, K., & Noga, T. (2010). Do corporate governance characteristics influence tax management? *Journal of Corporate Finance, 16*(5), 703–718. doi:10.1016/j.jcorpfin.2010.08.00

Musgrave, R., & Musgrave, P., (1989). *Public finance in theory and practice* (5th ed.). New York: McGraw-Hill Book Co.

Oats, L., & Tuck, P. (2019). Corporate tax avoidance: is tax transparency the solution?. *Accounting and Business Research*, *49*(5), 565–583. doi:10.1080/00014788.2019.1611726

Owens, J. P. (2008). Good corporate governance: The tax dimension. In *Tax and corporate governance* (pp. 9-12). Springer, Berlin, Heidelberg.

Payne, D. M., & Raiborn, C. A. (2015). Aggressive Tax Avoidance: A Conundrum for Stakeholders, Governments, and Morality. *Journal of Business Ethics*, *147*(3), 469–487. doi:10.1007/s10551-015-2978-5

Pfaffermayr, M., Stöckl, M., & Winner, H. (2013). Capital structure, corporate taxation and firm age. *Fiscal Studies*, *34*(1), 109-135.

Rego, S. O., & Wilson, R. (2012). Equity risk incentives and corporate tax aggressiveness. *Journal of Accounting Research*, *50*(3), 775-810.

Rehman, S. U. (2022, Aug. 22). Bold measures for raising revenue. *Dawn.* https://www.dawn.com/news/1706184/bold-measures-for-raising-revenue

Robinson, J. R., Xue, Y., & Zhang, M. H. (2012). Tax planning and financial expertise in the audit committee. *Available at SSRN 2146003*.

Saeed, A., Belghitar, Y., & Clark, E. (2019). Political connections and corporate performance: Evidence from Pakistan. *Economics of Transition and Institutional Change*, *27*(4), 863-889.

Samo, A. H., & Murad, H. (2019). Impact of liquidity and financial leverage on firm's profitability – an empirical analysis of the textile industry of Pakistan. *Research Journal of Textile and Apparel*, *23*(4), 291–305. doi:10.1108/rjta-09-2018-0055

Sattar, U., Javeed, S. A., & Latief, R. (2020). How Audit Quality Affects the Firm Performance with the Moderating Role of the Product Market Competition: Empirical Evidence from Pakistani Manufacturing Firms. *Sustainability*, *12*(10), 4153. doi:10.3390/su12104153

Sheikh, M. F., Shah, S. Z. A., & Akbar, S. (2018). Firm performance, corporate governance and executive compensation in Pakistan. *Applied economics*, *50*(18), 2012-2027.

Sikka, P. (2003). The Role of Offshore Financial Centres in Globalization, *Accounting Forum*, *27*(4), 365-399, DOI: 10.1046/j.1467-6303.2003.t01-2-00111.x

Sikka, P. (2018). Combating corporate tax avoidance by requiring large companies to file their tax returns. *Journal of Capital Markets Studies, 2*(1), 9–20. doi:10.1108/jcms-01-2018-0005

Sikka, P., & Hampton, M. P (2005).The role of accountancy firms in tax avoidance: Some evidence and issues. *Accounting Forum*, *29* (3), 325-343, DOI: 10.1016/j.accfor.2005.03.008

Song, Y., & Yarbrough, T. E. (1978). Tax Ethics and Taxpayer Attitudes: A Survey. *Public Administration Review, 38*(5), 442. doi:10.2307/975503

Stiglitz, J. E. (1985). The General theory of tax avoidance. *National Tax Journal*, *38*(3), 325–337.

Taylor, G., & Richardson, G. (2012). International corporate tax avoidance practices: Evidence from Australian firms. *The International Journal of Accounting*, *47*(4), 469-496.

Ullah, H., Shah, H. A., & Khan, S. A. (2021). Tax Aggressiveness, Tunneling and Firm Value: Interactive Effect of Corporate Governance in Business Groups. *Journal of Applied Economics and Business Studies*, *5*(1), 109-130.

Waweru, N. (2014). Determinants of quality corporate governance in Sub-Saharan Africa. *Managerial Auditing Journal*, *29*(5), 455 – 485

Wang, F., Xu, S., Sun, J., & Cullinan, C. P. (2019). Corporate tax avoidance: A literature review and research agenda. *Journal of Economic Surveys*, *34*(4), 793-811.

Zimmerman, J. L. (1983). Taxes and firm size. *Journal of Accounting and Economics, 5*, 119–149. doi:10.1016/0165-4101(83)90008-3