The effect of ownership structure on tax avoidance with audit quality as a moderating variable: evidence from the ailing economics

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Abstract

Purpose – The purpose of this study is to shed light on the relationships between the different types of ownership structure and tax avoidance activities and examine the moderating effect of audit quality.

Design/methodology/approach – This study used secondary data from the listed companies in Amman Stock Exchange (2009–2020). To obtain additional robust findings, this study used various proxies for measuring tax avoidance (effective tax rate [ETR] and cash flow effective tax rate [CFETR]).

Findings – Relying on various proxies for tax avoidance, the results reveal that family and managerial ownership lead to exacerbating tax avoidance activities. Although institutional and board ownership have a positive impact on ETR and CFETR, which indicate that these type of ownership have a negative impact on tax avoidance. Audit quality also has a significant role in moderating the ownership structure–tax avoidance relationships. Besides, the results reveal that audit firm size is not merely symbolic words, but it contributes to reducing and restricting tax aggressiveness.

Research limitations/implications – This study has policy implications related to the policymakers in creating future tax policies to minimize and avoid tax avoidance activities. Results of this study can be used to improve awareness among the various owners and to reduce the tax avoidance practices in the developing countries. It also determines a good agenda for research in the relationships between ownership identities, audit quality and tax avoidance, which also can be used to encourage and guide future studies.

Originality/value – This research extends the existing literature by examining both the direct and indirect influence of ownership structure on tax avoidance in Jordanian firms by including audit quality as a moderating variable. This is a pioneering and unique study examining the joint influences between the various identities of ownership and audit quality on the tax avoidance activities in the Jordanian context.

Keywords Tax avoidance, Ownership structure, Audit quality, Effective tax rate, Cash flow effective tax rate

Paper type Research paper

1. Introduction

In fact, taxes considered as a high material cost for the firms and it lead to reduce the cash flow available for the various owners (Suranta et al., 2020). Consequently, it can be incentive for

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firms to minimize taxes expenditure through the various activities of tax avoidance (Chen et al., 2010). Recently, tax avoidance issues have attracted increasing attention in the previous studies (Dakhli, 2022). To support governmental investment in providing public services, governments should confront tax evasion and avoidance issues given that they lead to eroding the tax base of any economy, thus affecting the government revenue negatively. Therefore, governments have to be aware of dealing with wealthy individuals or organizations that develop various schemes regarding aggressive tax planning to reduce or hide their tax liabilities (Natpraypant, 2020). Tax is considered one of the main factors that affect decision-making, firms’ strategies and financial markets as a whole. The prior literature indicated that firms try to select among the strategies that lead to reducing tax costs (Mehrani and Seyedi, 2014). In general, an important part of the financial resources for the government income is provided through the tax. In contrast, the fraud and tax avoidance in several countries have led to reducing the incomes arising out of the tax to be less than what it is estimated (Fernández-Rodríguez et al., 2019).

Firms’ income taxes represent a high expense or high costs to the shareholders and firm. Yet, it seems that tax avoidance is underexploited by the firms (Weisbach, 2001). In this regard, tax avoidance can be defined as minimizing or reducing explicit or actual taxes (Hanlon and Heitzman, 2010). It is an attempt to avoid taxes legally paid by the taxpayers and not contrary to the tax law, using methods and different techniques through using the existing advantages or the weaknesses in the tax laws and regulations, which lead to reducing the payable amount of the taxes (Dakhli, 2022). There is no doubt that taxes are beneficial to the government, but it is a cost to other shareholders; therefore, tax avoidance is beneficial to them. The multidisciplinary nature of the tax studies is what makes the tax research exciting. Therefore, the researchers have to follow tax issues and studies in the accounting, financial, economics and law.

There are two theoretical arguments in the literature regarding tax avoidance. The first and traditional argument indicates that tax avoidance leads to increase firm value, whereas the second and alternative argument indicates that tax avoidance activities are associated with the opportunistic behavior of the management. Based on the traditional argument, tax avoidance activity is considered a value-maximizing action of the firm given that it entails or involves a transfer of the wealth from the government to the shareholders. Consequently, shareholder wealth will increase with the firm tax avoidance as the expected marginal benefit exceeds the expected marginal cost (Desai and Dharmapala, 2009).

In addition, the associated literature on tax avoidance issues is still recent but very interesting. The recent advances in the tax avoidance theories in the frame of the principal agent would help develop the literature along several dimensions. Furthermore, recent studies have expanded and developed our thinking and understanding through the possibility of incorporating the influences of corporate governance (CG) mechanisms such as ownership structures. Empirical investigations of these theories propose several potentially exciting methods for future investigation. It is expected that the various shareholders are weighing the potential benefits arising out of tax avoidance against the potential costs of the actual enforcement, penalty and loss of reputation (Hanlon and Heitzman, 2010) if the company’s tax compliance is flagged negatively by the tax authorities.

The empirical studies regarding tax avoidance issues have grown over the past few years. Such studies aimed to explain the firm’s features, which explain the firm’s tax strategies, and document essential variation in the levels of tax avoidance (Dyreng et al., 2008; McGuire et al., 2012; Fernández-Rodriguez et al., 2019). Previous empirical studies have revealed high variation in the benefits and the costs in relation to tax avoidance. Although the tax system in place may have essential effects on the development of the ownership types, the ownership structure/
types can also have essential influences on tax avoidance (Desai and Dharmapala, 2008). Literature on the issues of tax avoidance is surprisingly limited. For instance, an early study by Shackelford and Shevlin (2001) called for a broad explanation to understand the association between ownership structure, agency conflict and tax avoidance, and such calls have been renewed by Hanlon and Heitzman (2010), Gaaya et al. (2017, and Alkurdi and Mardini (2020).

Pursuing the previous perspectives, prior studies have examined the influences of one or two types of ownership structures/types in the form of family ownership (Chen et al., 2010), institutional ownership (Otieno, 2014) and managerial ownership (Ribeiro, 2015). In addition, Abdul Wahab et al. (2017) revealed that there is an increase in the monitoring role as the ownership increases. Thus, the main purpose of this study is to examine the joint impact of the different types of ownership structures (family, institutional, managerial and board ownership) on tax avoidance in the Jordanian context, as there is an urgent need to find solutions to address and combat the various activities of tax avoidance, due to its effects on erode the tax base. In addition, rampant the various activities of tax avoidance has led to depriving the Jordan of billions of dinars over decades [1].

Tax avoidance may range between reducing the tax burden and tax law violation through the deep knowledge of the various parties in the tax system rules (Wang et al., 2020). Nevertheless, previous studies investigating the effect of ownership structures on tax avoidance activities have been limited to examine the direct relationships and have not considered the indirect investigation (Dakhli, 2022). Particularly, prior studies did not investigate the complicated relationships such as the mediating and moderating influences of other firm’s characteristics or other factors that may have significant effects on the firm orientation, motivation and decision-making, such as audit quality, as the auditors play a critical role in ensuring the accuracy and reliability of financial statements. Audit quality can enhance the trust and credibility of financial reporting, which, in turn, may impact the effectiveness of CG mechanisms. In addition, high-quality audits provide effective monitoring and assurance mechanisms. This monitoring can affect the way CG practices are implemented and their impact on financial performance (Gaaya et al., 2017; Ghakerodkhani et al., 2018; Alhababsah, 2019). Thus, it is interesting to investigate what previous studies relatively neglected as well as gain new evidence and insights into the ownership structures–tax avoidance relationships and effect of audit quality on these relationships.

In this research, two questions were developed to address its objectives and each question is associated with each objective. The questions and objectives of this research are associated with eight hypotheses. The first question is associated with the direct effects of the ownership structure (family, institutional, managerial and board ownership) on tax avoidance (H1a, H1b, H1c and H1d). Although the second question is related to the indirect relationships, it reflects the moderating effect of the audit quality on the ownership structures–tax avoidance relationships (H2a, H2b, H2c and H2d). The research questions that the current study seeks to address are:

Q1. How does ownership structure affect tax avoidance?
Q2. Does audit quality moderate the ownership structure–tax avoidance relationships?

To answer the above research questions, this study uses panel data that consists of 1,128 firm-year observations that are derived from the listed firms in the Amman Stock Exchange (ASE) from 2009 to 2020. Ownership structure is proxied by family, institutional, managerial and board ownership. Although tax avoidance is measured by ETR and CFETR. The study finds that family and managerial ownership lead to exacerbating tax avoidance activities. While institutional and board ownership have a significantly negative influence on tax avoidance activities. Audit quality also has a significant role in moderating the ownership
structure–tax avoidance relationships. Besides, the results reveal that audit firm size is not merely symbolic words, but it contributes to reducing and restricting tax aggressiveness.

1.1 Motivation
Previous studies have examined firms’ characteristics as critical factors in the decision-making to engage tax avoidance activities, such as, firm size (Prabowo, 2020; Riguen et al., 2021), liquidity (Sari and Tjen, 2017; Kalbunana et al., 2020), profitability (Mafrolla and D’Amico, 2016; Salhi et al., 2020; Rahman and Leqi, 2021) and ownership structure (Fernández-Rodriguez et al., 2019; Zolotoy et al., 2021; Jiang et al., 2021; Dakhli, 2022). Ownership structure has a significant role in decision-making regarding tax avoidance (Kovemman and Velte, 2019). As various owners may possess various incentives and time horizons for firms decisions (Raimo et al., 2020), it is expected that such owners will possess various attitudes toward tax avoidance activities (Lietz, 2013). In particular, the association of ownership structure with tax avoidance has been largely investigated but with mixed results and most of these investigations conducted in the developed countries (Dakhli, 2022).

In a report on Jordan’s Tax Reform (2018):

Jordan faced the largest protest in years due to increasing living costs, economic hardship and the announcement of a new tax reform. These protests surpassed the size and scope of those in the Arab Spring, forcing the government to resign, given that the relationships between the government and citizens are characterized by mistrust, weakness and corruption, as well as the economic reforms needed to improve the national crisis [2].

Recently, the Jordanian Government and tax authorities have gone after some senior businessmen, former politicians and several organizations suspected of tax avoidance, money laundering and customs evasion in a wide campaign that has gained greater urgency with the hit to state finances in the COVID-19 pandemic to aid the ailing economy. The Jordanian Government had frozen the assets of dozens of companies and businessmen due to suspected tax evasion. It added that it would track offshore havens where wealthy Jordanians have long parked cash to avoid taxes. Jordan has recently witnessed several challenges at the economic and social level, such as the rapid increase in the population and the difficult political conditions (Arab Spring), which affected the Middle East. All sectors of the Jordanian economy have been negatively affected by regional conflicts and instability in the Middle East (Alkurdi and Mardini, 2020). Consequently, the markets were lost, the unemployment rate increased and the economic growth slowed (Samawi et al., 2018). Such challenges have led to noticeable pressures on the different economic sectors, especially under the current budget limitations. In addition, Jordan faced several challenges due to the lack of natural resources like oil and water. Jordan also combined rapid urbanization and the increasingly growing population as a result of cultural, economic or political reasons such as recurring forced immigration from the neighboring countries during the past 69 years. Furthermore, Jordan imports 96.5% of its energy needs, which is equal to 83% of the total export gains, as well as it increasingly relies on international financial assistance (Alhusban, 2018).

Therefore, the Jordanian context is considered a unique and significant setting where the legal protection of investors’ and shareholders’ rights is weak, and the Jordanian economy is still not well-developed (Qawqzeh et al., 2021a). Such two reasons may lead the organizations to use tax-saving means to obtain private benefits and avoid payment of taxes at the expense of other shareholders. Various types of ownership have various investment policies and objectives, and such a variation affects the monitoring role of these types over the investee’s companies (Alhababsah, 2019). In this regard, previous studies have limitedly focused on specific types of ownership (Boussaidi and Hamed, 2015; Alhababsah, 2019;
Alkurdi and Mardini, 2020). Besides, less attention has been paid to other types of ownership, such as board ownership (Marzuki and Al-Amin, 2021), and there is no comprehensive investigation of all types in one study, particularly in developing countries. This motivates the current study to go further and examine whether tax avoidance varies across other various types of ownership.

In their study, Kanagaretnam et al. (2016) argue that external audit quality has a significant influence in reducing tax aggressiveness activities, but this influence is pronounced in countries that have strong laws to protect the investors’ rights and high litigation risk of the auditors. Such results reflect that the research question is still open for new and thorough evidence to uncover new insights in developing countries, such as Jordan, where the legal protection of the investors is weak (Qawqzeh et al., 2021a). Thus, further investigation to answer the questions such as What is the relationships between ownership structure and tax avoidance and Does audit quality moderate the relationship between ownership structure and tax avoidance? is required in such countries.

In general, this study explores the effect of ownership structure on tax avoidance with audit quality as a moderating variable among firms in Jordan. Tax aggressiveness and tax avoidance refer to different tax-planning activities that can be used to reduce tax liability, which lead to reduce the revenue of the nation (Abdul Wahab et al., 2017). The empirical studies on the tax issues in the Jordanian capital market are limited. Only one study has been conducted in Jordan regarding the impact of ownership identities on tax Avoidance, namely, Alkurdi and Mardini (2020). However, their study is limited to examining only the direct impact of managerial and institutional ownership on tax avoidance. Therefore, they recommend that more investigations on other ownership identities are needed in the Jordanian context. The ownership structure plays a significant role toward tax aggressiveness due to the monitoring role (Abdul Wahab et al., 2017). In this regard, Abdul Wahab et al. (2017) found that the institutional ownership have an inverse influence on tax aggressiveness, which reflects an increase in the monitoring role as the ownership increases. In addition, the current study is grounded in the agency theory to understand the rationale behind exploring ownership structures and their effects on tax avoidance.

There is a scarcity of studies that investigated the influence of ownership structure on tax avoidance, particularly in the Middle East context. Thus, in the context of steep price hikes, high poverty rates and a widespread feeling that government corruption prevents the efficient use of taxpayer money in Jordan (Felbert, 2019), this study aims to provide up-to-date evidence regarding the effects of various identities of the ownership on tax avoidance, as well as the role of external audit on these relationships, taking into account the Jordanian unique institutional context as a developing economy. More specifically, the first research objective is to examine the relationships between ownership structure and tax avoidance. Whereas the second research objective is to examine whether the audit quality moderates these relationships.

1.2 Jordanian economy
The Jordanian economic situation is currently considered very worrying. The unemployment rate has risen to 23.2% in the Q3 of 2021, the inflation rate reached 1.2%, the economic growth rate is still weak 2.1%, the budget deficit is –4.9% and the total public debt is still high (34907.3 million Jordanian dinars) in 2021 [3]. Nevertheless, the Jordanian economy has survived the disturbing situation compared with its peers.

Moreover, Amman (the capital of Jordan) has been ranked as one of the most expensive cities in 2018 among the Arabian cities and the 28th globally according to the Economist Intelligence Unit. In addition, since the Arab Spring Revolution, the Hashemite Kingdom of
Jordan has hosted a lot of refugees from neighboring countries, such as Palestine, Syria and Iraq. The official evidence shows that the number of refugees in Jordan is more than 760,000, whereas the real number of refugees is estimated to be double. Consequently, such challenges have put the Jordanian economy under pressure.

In addition, despite being a resource-scarce developing country, reducing the financial aid by the allies in the Gulf Cooperation Council, as well as the spiral debt, Jordan has been able to achieve several significant achievements at the local and international levels (Felbert, 2019). Furthermore, Jordan is currently considered a beachhead for modern technologies and the modern practices of business in the Middle East or North Africa (Al-Dmour, 2018). On the other hand, although tax collection increase over the time, the cases of tax default are also increase. The issues of tax avoidance have become a critical problem in achieving realistic tax collection, given that tax collection considered as a main source of income to the country. Thus, this research aims to examine the relationship between ownership structure and tax avoidance, as well as the role of audit quality on this relationship. Hence, the investigation into critical issues, such as tax avoidance, leads to systematic improvements in the modern economic orientation followed by Jordan.

More specifically, Jordan does face economic difficulties and vulnerabilities that have contributed to its economic situation and become from the ailing economies (Qawqzeh et al., 2021b). Some of the key factors include regional instability, limited natural resources, water scarcity, high unemployment, debt burden, dependency on foreign aid, as well as the economic reforms, as Jordan has undertaken economic reform efforts to address some of these challenges, including fiscal consolidation and subsidy reduction. However, these reforms can be politically challenging and take time to yield positive results.

The classification of this study is as follows: Section 1 consists of the introduction, motivation and an overview of the Jordanian economy. Section 2 presents a literature review and the developed hypotheses of ownership structure–tax avoidance relationships and audit quality. Section 3 shows the research design, measurements, sample and data. The results are discussed in Section 4. Conclusions, implications, limitations and suggestions for future studies are presented in Section 5.

2. Literature review and hypotheses development

2.1 Tax avoidance

Though tax avoidance activities are considered as old as the taxes themselves, methods for engaging in such activities among taxpayers have recently turned to become sophisticated and complicated (Annuar et al., 2014). Theoretically, tax avoidance can be considered an attempt to minimize tax payments or one of the earnings management activities (Hanlon and Heitzman, 2010). It represents an exploitation of the existing loopholes in tax law to minimize the tax burden (Sandmo, 2005). It can be also considered a strategy used by firms to increase profitability by reducing the tax burden.

Several factors can affect tax avoidance, among others whereby ownership structure plays a significant role in this issue (Lietz, 2013; Pitenoei and Gholamreza, 2020). In addition, given that the separation between ownership and management is essential to understand tax avoidance practices (Sandmo, 2005), the current study, therefore, examines whether the different types of ownership structure affect the tax avoidance levels in the Jordanian context and whether the external audit quality moderate this relationship. This study used common measures for tax avoidance, namely, effective tax rate (ETR) that represents the total tax expense divided by income before tax and cash flow effective tax rate (CFETR) through total tax expenses scaled by operational cash flows. Such measures can reflect the nonconforming tax avoidance. These measures are considered appropriate for the
study’s sample of the listed firms, as the reported book-income in the financial statements is very important for different investors. ETR and CFETR are widely used in the recent literature and they are considered suitable proxies to assess the behavior of tax avoidance for various reasons. These proxies can capture the tax reduction forms by the tax shelters or loopholes existing in the tax laws (Dyreng et al., 2017) and are considered an inverse function for tax avoidance, as the lower values of the ETR and CFETR refer to greater involvement in tax avoidance activities (Frank et al., 2009). In addition, as the income tax expense is accrual-based, portions of these expenses can be potentially manipulated to affect the after-tax earnings (Hanlon and Heitzman, 2010).

2.2 Family ownership
Based on the cost or benefits of tax avoidance or tax evasion, several previous researchers have argued that different types of ownership structures, such as family, foreign or government (state) ownership may be associated with tax avoidance activities. The issues regarding tax avoidance and tax evasion were difficult and interlocking problems as the beginning of the legislation associated all tax issues. These problems are also widely prevalent in any society, where taxes are levied. This issue is more prevalent among the firms’ taxpayers because of the high magnitude of the firm income taxes (Annuar et al., 2014). The family ownership structure in the firms suffers from a different and unsteady conflict of the costs and benefits arising from tax avoidance. Therefore, an urgent need arises for further investigations. The appointment of the directors on the firm’s board, especially in family firms, is largely affected by the members of the families to maintain their power and relevance in the control over other stockholders in the firm (Peng and Jiang, 2010). Although the only potential cost of tax avoidance activities within the family firms (family ownership) is the potential penalty imposed through the tax authority (Annuar et al., 2014), the effects of tax avoidance on the reputation appear to be less within the family firms, given that they are less dependent on other suppliers of the capital, as they provide the required capital through the family members. Therefore, it is reasonable to conclude that the costs or benefits of tax avoidance activities are varying for family ownership.

In their study, Chen et al. (2010) revealed that family ownership is less tax aggressive compared to nonfamily firms. They indicated that the family owners are willing to waive the tax benefits to avoid other nontax costs. Besides, Landry et al. (2013) revealed a negative association between family ownership and tax avoidance in family firms compared to nonfamily firms. Also, Kourdoumpalou (2016) found a negative and significant association between ownership by family members and the levels of tax evasion. Furthermore, Masripah et al. (2016) revealed that the entrenchment influence of the controlling shareholder has a negative influence on tax avoidance activities. When the family ownership is controlling, the entrenchment influence does not affect tax avoidance. Bauweraerts et al. (2019) documented that companies owned by the family, family firms that have CFO from the family, family-founder firms, as well as family-named firms show lower levels of tax aggressiveness. Conversely, Gaaya et al. (2017) found a positive impact of family ownership on tax avoidance. Rakayana et al. (2021) showed that family ownership has no effect on tax avoidance. According to the agency theory (Jensen and Meckling, 1976), family ownership can act as a monitoring mechanism within the CG system, and it also can mitigate agency problems and reduce opportunistic activities by aggressive management, thus resulting in less aggressive tax activities. The previous inconsistency in the findings led to the following hypothesis:

\[ H1a. \] Family ownership has a significant negative effect on tax avoidance.
2.3 Institutional ownership
Most of the shareholders do not prefer the promote tax avoidance, given that tax avoidance is considered a politically charged issue that can lead to attracting unfavorable attention by the media, government authorities and consumer or public interest groups toward both the company and its various investors in a negative phenomenon referred to it as “tax-shaming” (Barford and Holt, 2013). This implies that institutional investors or other investors are unlikely to explicitly promote tax avoidance and they will rely instead on other alternatives such as the latent demand implicit in their demand for the better financial performance of the firm or on private communication to that effect (Khan et al., 2017). Theoretically, tax avoidance leads to increasing the value of the firm by tax savings, whereas the ownership by institutions (the long-term ownership) is more likely to reduce tax avoidance actions, specifically when these actions encourage the managerial opportunism or lead to reducing transparency (Khurana and Moser, 2013).

In their study, Shleifer and Vishny (1986) argued that the institutional owners by virtue of their high ownership have different rights and some incentives to collect specific information and monitor the management given that they reap greater benefits than other smaller owners in monitoring the organization. Prior studies have reported mixed results, Khurana and Moser (2013), Ghalerodkhami et al. (2018) and Dakhli (2022) have found a negative association between institutional ownership and tax avoidance. On the other hand, Khan et al. (2017) found a significant and positive association between institutional ownership and tax avoidance. Jiang et al. (2021) also found that institutional ownership has a positive association with tax avoidance. In contrast, Otieno (2014) found that institutional ownership has an insignificant impact on tax avoidance. Rakayana et al. (2021) showed that institutional ownership has no effect on tax avoidance. Tanko (2020) showed a negative but insignificant influence between institutional ownership and tax avoidance. According to the agency theory, conflicts of interest lead to agency problems (Jensen and Meckling, 1976) and ownership structure can play a significant role in decision-making regarding tax avoidance. Precisely, institutional ownership is considered one of the main techniques of CG to monitor the agents’ behavior to reduce agency problems (Kovermann and Velte, 2019). The above discussion led to the following hypothesis:

\[ H1b. \] Institutional ownership has a significant negative effect on tax avoidance.

2.4 Managerial ownership
The management has significant and different individual influences on the issue of tax avoidance (Dyreng et al., 2010) and it is expected that the personal benefits are weighed from the high returns against the specific costs in the case of enforcement action by the tax authorities. Such private costs, which also include the high potential to lose the job and reputation as well as other penalties, are likely to be significant. If the assessment by the shareholders of the costs-benefits tradeoff of the tax avoidance was different from the assessment by the management for the same tradeoff, then the changes in the ownership structure will likely hold an explanatory power for the firm tax avoidance (Khan et al., 2017).

In their study, Desai and Dharmapala (2006) showed a surprising result that the firms with poor CG and where the managers possessing high levels of equity incentives these firms engage in fewer levels of tax sheltering. They interpret their results that the tax avoidance activities are considered complementary activities. In another study, Park et al. (2016) revealed that managerial ability has a significantly negative impact on tax avoidance. Also, Salaudeen and Ejeh (2018) and Alkurdi and Mardini (2020) found that managerial ownership has a significantly negative influence on tax aggressiveness (tax avoidance). In
another study, Li (2014) discovered that the managerial ownership has a negative but insignificant association with tax aggressiveness. He indicates that the insignificant impact may be because of the low portion of ownership held by the managers. Conversely, Rego and Wilson (2012) revealed that the firms in which managers possess high risk-taking equity incentives engage in more activities of tax avoidance. Their results do not vary across the strength of the CG mechanisms. Besides, Boussaidi and Hamed (2015) and Ribeiro (2015) showed that managerial ownership is positively and significantly associated with tax aggressiveness. Whereas Rakayana et al. (2021) showed that managerial ownership has no effect on tax avoidance. The results of these studies indicate that ownership by management contributes to reducing ETRs.

The various problems of the agency relationship can lead the management to engage in several activities of tax avoidance to meet the expectations of the shareholders regarding the investment opportunities that include expected high cash flows (Armstrong et al., 2015). Based on the agency theory, the managers who have ownership in the firm may have specific incentives at the expense of other types of ownership in light of absence the of market control (Jensen and Meckling, 1976). In this regard, tax avoidance activities have an association with several aspects of managerial ownership or other types of ownership, which can be represented through value, earnings and compensation. For instance, managers can use tax avoidance activities as a way to gain hidden incentives (Desai and Dharmapala, 2006). Based on the above discussions, the following hypothesis can be formulated:

\[ H1c. \] Managerial ownership has a significant negative effect on tax avoidance.

2.5 Board ownership

This study examined the effect of ownership by the board of directors on tax activities as a single factor, based on the assumption “combining directors’ ownership with the other ownership types in one variable might hide part of fact” (Sori and Mohamad, 2008). The managers can influence individually the behavior of the firm related to tax avoidance. In their study, Dyreng et al. (2010) explained that, in addition to the influences of the company’s characteristics on tax avoidance, the individual managers and directors also affect tax avoidance. The main focus of previous studies was on specific types of ownership, such as managerial ownership (Alkurdi and Mardini, 2020), ownership concentration (Boussaidi and Hamed, 2015) or family ownership (Gaaya et al., 2017), instead of focusing on ownership held by the board of director (Marzuki and Al-Amin, 2021).

Regarding the directors’ ownership (board ownership), Kourdoumaloulou (2016) investigated the relationship of the CG mechanisms with tax evasion levels in Greek firms, from 2000 to 2004, whereby the results indicated that the levels of tax evasion are lower and weak if the chairman on the board has an ownership in the firm. In addition, the same study revealed a negative and significant relationship between the ownership by the members of the board with the levels of tax evasion. More specifically, tax evasion levels become higher if the board’s members are employees in the same firm. Chan et al. (2013) found that the higher percentage of the board shareholdings is associated with aggressive tax strategy, but this result is only among the nongovernment-controlled companies. Furthermore, Marzuki and Al-Amin (2021) found that the ownership held by directors on the board leads to increasing tax aggressiveness.

Board ownership can lead to the alignment of the interests between directors on the board and firm performance. Tax avoidance activities may result in helping the directors to benefit from the increased firm’s share values (Chan et al., 2013). In addition, McWilliams and Sen (1997) revealed that with more ownership held by the board of directors, incentives for
managerial entrenchment will increase also, and they will have additional incentives to increase the firm’s value. Thus, aggressive tax management is considered a significant process to increase the firm’s value. Nevertheless, the current study has a significant contribution in attempting to differentiate the influence of board ownership and managerial ownership on tax avoidance. The current study analyses board ownership given that it aims to address the effect of ownership types as a whole on tax avoidance. In addition, the CG law in Jordan requires listed companies to disclose the directors’ ownership on the board in their annual financial statements. This study supports the argument that ownership held by the board’s directors increases incentives for the board’s directors to protect their stocks in the company and increases the directors’ involvement in the firm’s strategic restructuring (Johnson et al., 1993). Therefore, this study proposed the following hypothesis:

\[ H1d. \] Directors' ownership has a significant negative effect on tax avoidance.

2.6 Audit quality

The fact that the taxes take away high levels of the companies’ pretax profits and subsequently it minimizes their distributable earnings to the shareholder can be considered as the main reason for the endless war against the tax avoidance issue (Annuar et al., 2014). Hundal (2011) argued that the tax avoidance issue is the most challenging matter of this generation, given that it represents a serious and high loss for the government revenue for both developed and developing economies. Based on the agency theory prediction, external audit quality has a significant role in reducing the conflicts of interest existing between the management and owners (Jarbou et al., 2020). It is also considered one of the CG characteristics that control opportunistic behavior by the management and prevents accounting or financial manipulation or any fraudulent misrepresentation (DeAngelo and Masulis, 1980). In addition, it is expected that external auditors with high-quality levels will provide an independent opinion regarding the company’s financial statements and assess whether the clients have aggressive activities to reduce tax liabilities (Gaaya et al., 2017; Guenther et al., 2017). The low level of the firm’s earnings quality can be attributed to the separation (conflict of interest) between the firm’s owners and its management. According to Saksessia and Firmansyah (2020), such conflicts can be the existence of tax avoidance activities by the management. These activities can lead to restraining the firm’s owners to achieve an acceptable level of earnings after the tax. In addition, such activities can lead to reducing earnings quality and biased decisions. Therefore, the existence of these activities, based on the agency theory, requires a monitoring mechanism in the form of the CG, such as audit quality.

In this regard, it is acceptable that auditors with a high-quality level are less likely to engage in tax avoidance activities and they avoid aggressive activities due to the harmful consequences, such as litigation risk and loss of reputation or trust (DeAngelo, 1981; Hanlon and Slemrod, 2009; Donohoe and Knechel, 2014). Furthermore, it is expected that audit quality can moderate the relationship between ownership identities and tax avoidance activities (Richardson et al., 2013). Few prior studies have investigated the influence of external audit quality on tax avoidance, especially in developing countries (Klassen et al., 2016; Kraft and Lopatta, 2016). Furthermore, although there are various anti-avoidance legislations in all countries, firms around the world use and hire expensive accountants or auditors (such as Big4 audit firms) to find out different or complicated ways to pay fewer taxes levels (Daily-Mail, 2010). In their study, Kanagaratnam et al. (2016) found that external audit quality has a significantly negative influence on the likelihood of tax avoidance. In addition, Gaaya et al. (2017) found that external audit quality (measured by auditor’s size)
moderates the relationship of family ownership with tax avoidance. This study supports the perspectives of the agency theory, which argued that the managers and other ownership entities may have private interests of control at the expense of other owners in the absence of market control. Therefore, companies need useful and effective governance mechanisms such as external audit with a high-quality level to curb and restrict such exploitation (Jensen and Meckling, 1976; Marzuki and Al-Amin, 2021). Consequently, based on the importance of the external audit quality in protecting the rights and interests of shareholders, the current study proposes the following hypotheses:

H2a. Audit quality moderates the family ownership–tax avoidance relationship.
H2b. Audit quality moderates the institutional ownership–tax avoidance relationship.
H2c. Audit quality moderates the managerial ownership–tax avoidance relationship.
H2d. Audit quality moderates the board’s ownership–tax avoidance relationship.

3. Research design
3.1 Data collection and resources
To ensure the accuracy and reduce bias, this study used a combination of manual data collection from firms’ annual reports and automated data retrieval from financial information platform of ASE. The study’s population included all nonfinancial companies listed in ASE. The investigation covers the period (2009–2020) given that Jordan adopted the CG codes since 2009. As shown in Table 1, the study excluded financial companies given that they have different regulations, special features and various trading mechanisms in the market. In this regard, financial and nonfinancial firms differ in several ways. Although many principles of CG apply to both types of firms, there are some key differences due to the nature of their business activities and the regulatory environments they operate in. For instance, the regulatory environment: financial firms, such as banks, insurance companies and investment firms, are subject to more extensive and specific regulatory requirements compared to nonfinancial firms. These regulations are designed to ensure the stability and integrity of the financial system. Whereas the nonfinancial firms generally face less stringent regulatory oversight. The study also excluded companies with missing data. The final sample included nonfinancial firms in the service and industry sectors (94 firms) that disclosed the necessary information in their annual reports. In addition, the current study used several control variables that have a potential influence on tax burden, namely, firm size, ROA, audit fees and

<table>
<thead>
<tr>
<th>Sector name</th>
<th>Numbers</th>
<th>Included, excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial sector</td>
<td>107</td>
<td>Excluded</td>
</tr>
<tr>
<td>Total:</td>
<td>(107)</td>
<td></td>
</tr>
<tr>
<td>Services sector</td>
<td>54</td>
<td>Included</td>
</tr>
<tr>
<td>Total:</td>
<td>(9)</td>
<td>45</td>
</tr>
<tr>
<td>Missing data:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial sector</td>
<td>63</td>
<td>Included</td>
</tr>
<tr>
<td>Total:</td>
<td>(14)</td>
<td>49</td>
</tr>
<tr>
<td>Missing data:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>94</td>
</tr>
</tbody>
</table>

Source: Created by author

Table 1. Sample description
loss following Shevlin and Porter (1992), Dyreng et al. (2008), Annuar et al. (2014), and Qawqzeh et al. (2021b). Table 1 shows the types and measurements of the study variables.

3.2 Measurement of the variables

Table 2 displays measurement of the study variables, namely, the dependent variable (tax avoidance) measured by ETR and CFETR (Gaaya et al., 2017; Kovermann and Velte, 2019; Alkurdi and Mardini, 2020; Dakhli, 2022), independent variables (family, institutional, managerial and board’s ownership) following (Fernández-Rodriguez et al., 2019; Zolotoy et al., 2021; Jiang et al., 2021; Qawqzeh et al., 2021b; Dakhli, 2022) and control variables (firm size, ROA, audit fees and loss).

Table 2.
Measurement of the variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax avoidance (TA)</td>
<td>Dependent variable</td>
<td>ETR and CFETR</td>
</tr>
<tr>
<td>Effective tax rate (ETR)</td>
<td>=</td>
<td>Tax expense divided by income before tax</td>
</tr>
<tr>
<td>Cash flow effective tax rate (CFETR)</td>
<td>=</td>
<td>Tax expense scaled by the operational cash flows</td>
</tr>
<tr>
<td>Audit quality (AQ)</td>
<td>Moderating variable</td>
<td>Dummy variable equals 1 if the company is audited by one of the Big audit firms, 0 otherwise</td>
</tr>
<tr>
<td>Family ownership (FMOWN)</td>
<td>Independent variable</td>
<td>Percentage of ownership by the families</td>
</tr>
<tr>
<td>Institutional ownership (INSOWN)</td>
<td>=</td>
<td>Percentage of institutions’ ownership</td>
</tr>
<tr>
<td>Managerial ownership (MAOWN)</td>
<td>=</td>
<td>Percentage of managers’ ownership</td>
</tr>
<tr>
<td>Board ownership (BDOWN)</td>
<td>=</td>
<td>Percentage of directors’ ownership on the board</td>
</tr>
<tr>
<td>Firm size (FSIZ)</td>
<td>Control variable</td>
<td>LN’ total assets</td>
</tr>
<tr>
<td>Audit fees (AFEES)</td>
<td>=</td>
<td>LN’ audit fees</td>
</tr>
<tr>
<td>Return on assets (ROA)</td>
<td>=</td>
<td>Net income to total assets</td>
</tr>
<tr>
<td>LOSS</td>
<td>=</td>
<td>Dummy variable equals 1 if the company reported loss, 0 otherwise</td>
</tr>
</tbody>
</table>

Where, TA: tax avoidance; ETR: effective tax rate; CFETR: cash flow effective tax rate; AQ: audit quality-audit firm size (Big4/non-Big4); FMOWN: ownership held by families’ members; INSOWN: ownership held by institutions; MAOWN: ownership held by managers; BDOWN: ownership held by directors on the board; AFEES: audit fees; FSIZ: firm size; ROA: return on assets; LOSS: loss.

3.3 Econometric specification

As mentioned earlier, this study examines the moderating effect of audit quality on the ownership structure–tax avoidance relationship. There are two measurements of the dependent variable (tax avoidance), namely, ETR and CFETR, which reflect that there are two equations for each measurement. Consequently, equations (1) and (2) represent the direct relationships between ownership identities with both ETR and CFETR separately. Equations (3) and (4) represent the moderating effect of audit quality on these relationships, as follows:

\[
ETR = \beta_0 + \beta_1FMOWN + \beta_2INSOWN + \beta_3MAOWN + \beta_4BDOWN + \beta_5FSIZ + \beta_6AFEES + \beta_7ROA + \beta_8LOSS + \varepsilon
\] (1)
\[ CFETR = \beta_0 + \beta_1 \text{FMOWN} + \beta_2 \text{INSOWN} + \beta_3 \text{MAOWN} + \beta_4 \text{BDOWN} + \beta_5 \text{FSIZ} \\
+ \beta_6 \text{AFees} + \beta_7 \text{ROA} + \beta_8 \text{Loss} + \epsilon \quad (2) \]

\[ ETR = \beta_0 + \beta_1 \text{AQ} + \beta_2 \text{FMOWN} + \beta_3 \text{FMOWN} \ast \text{AQ} + \beta_4 \text{INSOWN} \\
+ \beta_5 \text{INSOWN} \ast \text{AQ} + \beta_6 \text{MAOWN} + \beta_7 \text{MAOWN} \ast \text{AQ} + \beta_8 \text{BDOWN} \\
+ \beta_9 \text{BDOWN} \ast \text{AQ} + \beta_{10} \text{FSIZ} + \beta_{11} \text{AFees} + \beta_{12} \text{ROA} + \beta_{13} \text{Loss} + \epsilon \quad (3) \]

\[ CFETR = \beta_0 + \beta_1 \text{AQ} + \beta_2 \text{FMOWN} + \beta_3 \text{FMOWN} \ast \text{AQ} + \beta_4 \text{INSOWN} \\
+ \beta_5 \text{INSOWN} \ast \text{AQ} + \beta_6 \text{MAOWN} + \beta_7 \text{MAOWN} \ast \text{AQ} + \beta_8 \text{BDOWN} \\
+ \beta_9 \text{BDOWN} \ast \text{AQ} + \beta_{10} \text{FSIZ} + \beta_{11} \text{AFees} + \beta_{12} \text{ROA} + \beta_{13} \text{Loss} + \epsilon \quad (4) \]

where,

- **ETR** = effective tax rate;
- **CFETR** = cash flow effective tax rate;
- **AQ** = audit quality-audit firm size (Big4/non-Big4);
- **FMOWN** = ownership held by families’ members;
- **INSOWN** = ownership held by institutions;
- **MAOWN** = ownership held by managers;
- **BDOWN[4]** = Ownership held by directors on the board;
- **AFees** = audit fees;
- **FSIZ** = firm size;
- **ROA** = return on asset;
- \( \beta_0 \) = constant;
- \( \beta_1 – \beta_4 \) = coefficients; and
- \( \epsilon \) = error term.

### 4. Findings

#### 4.1 Descriptive statistics

Descriptive statistics for the study variables are presented in Table 3. The mean of the dependent variables (ETR and CFETR) are 0.088 and 0.053, respectively, which reflects that the Jordanian companies favor strategies of the ETR more than the CFETR. These results are considered a reasonable result for tax avoidance (ETR and CFETR) compared to the results reported by prior studies, such as Otieno (2014), Gaaya *et al.* (2017) and Alkurdi and Mardini (2020). In addition, the ETR and CFETR are broadly dispersed from \(-3.264\) to \(5.705\) for ETR and from \(-45.12\) to \(50.128\) for CFETR. The mean of the moderating variable is 0.43, which

<table>
<thead>
<tr>
<th>Variables</th>
<th>ETR</th>
<th>CFETR</th>
<th>AQ</th>
<th>InsOwn</th>
<th>FmOwn</th>
<th>MaOwn</th>
<th>BdOwn</th>
<th>AFees</th>
<th>ROA</th>
<th>LOSS</th>
<th>FSIZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.088</td>
<td>0.053</td>
<td>0.43</td>
<td>0.309</td>
<td>0.053</td>
<td>0.028</td>
<td>0.473</td>
<td>8.48</td>
<td>3.142</td>
<td>0.32</td>
<td>11.17</td>
</tr>
<tr>
<td>Max</td>
<td>5.705</td>
<td>50.128</td>
<td>1.00</td>
<td>0.999</td>
<td>0.965</td>
<td>0.649</td>
<td>0.936</td>
<td>11.13</td>
<td>50.29</td>
<td>1.00</td>
<td>14.39</td>
</tr>
<tr>
<td>Min</td>
<td>-3.264</td>
<td>-45.12</td>
<td>0.00</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>7.08</td>
<td>-96.93</td>
<td>0.00</td>
<td>5.735</td>
</tr>
</tbody>
</table>

**Table 3.** Descriptive statistics

**Source:** Created by author
reflects that 43% of the study sample is audited by one of the big audit firms. This result is similar to the one reported by Qawqzeh et al. (2019) and Qawqzeh et al. (2021a) and it broadly disperses from 0 to 1. The independent variables have means as follows: FMOWN (0.053), INSONW (0.309), MAOWN (0.028) and BDOWN (0.473). It is clear that institutional ownership (30.9%) and board ownership (47.3%) are common ownership in the Jordanian context.

4.2 Correlation matrix
The correlation between the study variables (independent, moderating, control and dependent) and the significance of the correlations are shown in Table 4. The results show that the correlation of all variables is low (<0.8) given that the threshold of the harmful multicollinearity is (± 0.80) (Gujarati, 2003), and there is no high correlation between the variables, where no problems arise.

4.3 Relaxing of the different assumptions
4.3.1 Multicollinearity. This study used the variance inflation factors’ (VIF) test to assess the multicollinearity issue. The VIF is considered a common test to assess the collinearity existing between the study variables (Gujarati and Porter, 2009). As shown in Table 5, the VIF test shows that the values of the study variables are less than the ideal conditions VIF < 3 (Hair et al., 2014), which is considered a sign that there is no existence of the multicollinearity issue in this study.

4.3.2 Heteroskedasticity and serial correlation. In general, any regression model assumes that the serial correlation and heteroscedasticity assumption does not exist (Gujarati and Porter, 2009). This study used the Breusch-Pagan–Godfrey’s LM test to examine the existence of the heteroscedasticity and serial correlation issues. Table 6 displays that there is no big issue regarding the heteroskedasticity assumption, as the p-values of the test for ETR and CFETR are found to be insignificant values (0.827 and 0.214), respectively. Concerning the serial correlation assumption, the results in Table 6 revealed that the values of chi-square for ETR and CFETR are insignificant (0.336 and 0.264), respectively, and thus, there is no serial correlation issue in this study.

4.4 Results
As mentioned early, the current study aims to investigate the moderating effect of external audit quality on the relationship between different identities of the ownership structure and tax avoidance measured by ETR and CFETR. Therefore, to examine the moderating impact in the regression models, two equations/models for each measurement have been applied. Equations (1) and (2) in Table 7 reflect the impact of the independent variables on the dependent variable, namely, ETR and CFETR. Equations (3) and (4) (Table 8) show the moderating effect of audit quality on the ownership structure–tax avoidance relationship.

It is important to mention that ETR and CFETR are considered inverse proxies of tax avoidance. Therefore, the negative relationship between any independent variable with ETR or CFETR means a positive relationship with the dependent variable (tax avoidance) and vice versa. Table 7 illustrates the results of the influence of ownership identities (FMOWN, INSONW, MAOWN and BDOWN) on ETR and CFETR as a measure for tax avoidance [equations (1) and (2)]. It can be noted that the $R^2$-squared in Table 7 is (0.492) for the ETR and (0.562) for CFETR, respectively, thereby reflecting that these variables together explain 49% of the variance ($R^2$) in the dependent variable (ETR), and 56% of the variance ($R^2$) in the dependent variable (CFETR). The Prob (F-statistic) is (0.000) for the two proxies of tax avoidance (ETR and CFETR), which is an indicator that the model is statistically significant.
<table>
<thead>
<tr>
<th>Variables</th>
<th>ETR</th>
<th>CFETR</th>
<th>AQ</th>
<th>InsOwn</th>
<th>FmOwn</th>
<th>MaOwn</th>
<th>BdOwn</th>
<th>ROA</th>
<th>LOSS</th>
<th>AFees</th>
<th>FSIZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFETR</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AQ</td>
<td>-0.733*</td>
<td>-0.787**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>InsOwn</td>
<td>-0.024*</td>
<td>0.152</td>
<td>-0.117***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FmOwn</td>
<td>0.322</td>
<td>0.134</td>
<td>-0.004</td>
<td>0.687</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MaOwn</td>
<td>-0.007</td>
<td>0.024***</td>
<td>-0.009</td>
<td>-0.294</td>
<td>0.626</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BdOwn</td>
<td>0.772***</td>
<td>-0.037*</td>
<td>0.707**</td>
<td>0.587***</td>
<td>0.497</td>
<td>-0.687**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.016</td>
<td>0.217</td>
<td>-0.052</td>
<td>-0.017</td>
<td>-0.106</td>
<td>-0.033</td>
<td>0.285</td>
<td>1</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>LOSS</td>
<td>0.521***</td>
<td>-0.038**</td>
<td>0.034</td>
<td>0.476*</td>
<td>0.798</td>
<td>0.537**</td>
<td>-0.655***</td>
<td>-0.072</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFees</td>
<td>-0.442*</td>
<td>-0.294*</td>
<td>0.264*</td>
<td>0.276</td>
<td>0.645</td>
<td>-0.153*</td>
<td>0.459</td>
<td>0.237*</td>
<td>-0.024</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FSIZ</td>
<td>-0.01</td>
<td>0.382**</td>
<td>0.006**</td>
<td>0.322</td>
<td>-0.411**</td>
<td>0.274*</td>
<td>-0.038</td>
<td>0.284</td>
<td>0.453**</td>
<td>0.304</td>
<td>1</td>
</tr>
</tbody>
</table>

**Notes:** Sig. *10%; **5%; ***1%  
**Source:** Created by author
As shown in Table 7, family ownership (FMOWN) has a significantly negative impact on both of the tax avoidance proxies, namely ETR and CFETR (−0.095 and −0.103, respectively). As mentioned before, given that the ETR and CFETR are inverse proxies for tax avoidance, these results indicate that the FMOWN has a significantly positive effect on tax avoidance, suggesting that the ownership held by the family members exacerbates levels of tax avoidance. These results are associated with the hypothesis (H1a), and they are in line with

<table>
<thead>
<tr>
<th>Variable</th>
<th>ETR</th>
<th>CFETR</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ</td>
<td>1.019</td>
<td>1.634</td>
</tr>
<tr>
<td>InsOwn</td>
<td>1.182</td>
<td>1.973</td>
</tr>
<tr>
<td>FmOwn</td>
<td>1.247</td>
<td>2.635</td>
</tr>
<tr>
<td>MaOwn</td>
<td>2.394</td>
<td>1.772</td>
</tr>
<tr>
<td>BdOwn</td>
<td>2.503</td>
<td>1.906</td>
</tr>
<tr>
<td>Afes</td>
<td>1.369</td>
<td>1.387</td>
</tr>
<tr>
<td>ROA</td>
<td>1.308</td>
<td>2.037</td>
</tr>
<tr>
<td>LOSS</td>
<td>2.043</td>
<td>1.044</td>
</tr>
<tr>
<td>FSIZ</td>
<td>1.092</td>
<td>1.725</td>
</tr>
</tbody>
</table>

Table 5. Variance inflation factors

Source: Created by author

<table>
<thead>
<tr>
<th>Tax avoidance</th>
<th>Serial correlation</th>
<th>Heteroskedasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETR</td>
<td>0.336</td>
<td>0.827</td>
</tr>
<tr>
<td>CFETR</td>
<td>0.264</td>
<td>0.214</td>
</tr>
</tbody>
</table>

Source: Created by author

<table>
<thead>
<tr>
<th>Variables</th>
<th>Equation (1): ETR</th>
<th>Equation (2): CFETR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>p-value</td>
</tr>
<tr>
<td>FMOWN</td>
<td>−0.095</td>
<td>−2.102***</td>
</tr>
<tr>
<td>INSOWN</td>
<td>0.218</td>
<td>4.640***</td>
</tr>
<tr>
<td>MAOWN</td>
<td>−0.635</td>
<td>−2.052***</td>
</tr>
<tr>
<td>BdOwn</td>
<td>0.129</td>
<td>5.398***</td>
</tr>
<tr>
<td>AFees</td>
<td>0.369</td>
<td>9.591***</td>
</tr>
<tr>
<td>ROA</td>
<td>1.316</td>
<td>0.232</td>
</tr>
<tr>
<td>LOSS</td>
<td>−0.315</td>
<td>−6.953***</td>
</tr>
<tr>
<td>FSIZ</td>
<td>−0.020</td>
<td>−0.280</td>
</tr>
<tr>
<td>C</td>
<td>−0.011</td>
<td>−3.838***</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.492</td>
<td>0.562</td>
</tr>
</tbody>
</table>

Table 7. Regression analysis of the effect of ownership structure on tax avoidance

Notes: Sig. *10%; **5%; ***1%
Source: Created by author
prior studies such as Gaaya et al. (2017). The managerial ownership (MAOWN) has a significantly negative effect on ETR (−0.635), and MAOWN was found to have a negative but insignificant effect on the CFETR (−0.045). These results indicate that the MAOWN has a significantly positive effect on tax avoidance activities, suggesting that managerial ownership also exacerbates levels of tax avoidance. These results are related to hypothesis (H1c) and supported by Rego and Wilson (2012) and Boussaidi and Hamed (2015). However, the results do not support the developed hypotheses in this study (H1a and H1c), that “family and managerial ownership have a negative impact on tax avoidance”. Such results suggest that ownership held by the family members and management directors lead to exacerbating the tax avoidance activities in Jordanian firms. It also reflects if these types of ownership increase, tax avoidance activities will increase, too. Such results can be attributed to the fact that these types of ownership are not common in the Jordanian context. These results can be attributed to increased control by the family and management owners over financial decisions.

On the other hand, the results showed that institutional ownership (INSOWN) and ownership held by the boards’ members (BDOWN) have a significantly positive impact on ETR and CFETR, which indicate that these type of ownership have a negative and significant impact on tax avoidance, thus suggesting that INSOWN and BDOWN lead to restricting the levels of tax avoidance and reducing the tax burden. These results are associated with H1b and H1d. In addition, these results have been reported by several prior studies such as McWilliams and Sen (1997), Kourdoumpalou (2016) and Ghalerodkhani et al. (2018). The findings support the developed hypotheses in this study (H1b and H1d). Institutional and boards’ ownership has a significantly negative impact on tax avoidance in the Jordanian context. Contrary to the expectations of several previous studies such as Chan et al. (2013), Otieno (2014), Khan et al. (2017), and Marzuki and Al-Amin (2021), the more ownership the boards’ members and the institutions hold, the more levels of tax compliance the firms are. Such results can be attributed to the fact that these types of ownership are
common types among the Jordanian firms and they are careful to adhere to the legislations or due to contextual factors or limitations in the previous studies.

Table 8 illustrates the outcomes of equations (3) and (4). More specifically, it shows the moderating effect of audit quality (AQ) on the relationship between ownership structure and tax avoidance proxies. The results show that there is a significantly positive influence of the interaction variable (FMOWN×AQ) on both tax avoidance proxies (ETR and CFETR). This result supports the developed H2a. Consequently, audit quality reduces the tax avoidance activities by the family ownership. The influence of FMOWN on tax avoidance activities turns to a negative influence if such activities are well-audited. Such a result is supported by Gaaya et al. (2017). The results also show that the interaction variable (INSOWN×AQ) has a significantly positive influence on the ETR only and an insignificant influence on the CFETR. This result supports the developed H2b, which implies that audit quality moderates the institutional ownership–tax avoidance relationship (measured by ETR only).

Regarding the interaction variable (MAOWN×AQ), the results revealed that there is no significant influence on both of the tax avoidance proxies. This result does not support the developed H2c, whereas the interaction variable (BdOwn×AQ) has a significantly positive influence on both of the tax avoidance proxies. Consequently, this result supports the developed H2d, which implies that audit quality moderates the board’s ownership–tax avoidance relationship. More specifically, such results can be attributed to the fact that a higher audit quality reduce information asymmetry and therefore influence tax avoidance activities. Finally, audit quality has a significantly positive influence on both of the tax avoidance proxies, which reflects that audit quality has a significantly negative influence on tax avoidance. This result suggests that big audit firms do not engage in tax avoidance activities.

5. Conclusions
The Jordanian context is considered a unique and significant setting for conducting such an investigation due to the economic difficulties and the various vulnerabilities that have contributed to its economic situation. For instance, like many countries, Jordan has accumulated debt over the years, which can limit its ability to invest in infrastructure and other development projects. In addition, Jordan has undertaken economic reform efforts to address some of these challenges, including fiscal consolidation and subsidy reduction. However, these reforms can be politically challenging and take time to yield positive results. It is important to note that Jordan is not alone in facing economic difficulties, and many countries around the world, both developed and developing, have their own unique economic challenges. The term ailing economies is often used to refer to countries facing severe economic crises or chronic economic instability, which Jordan does not fit into when compared to some other nations. Nevertheless, Jordan’s economic challenges are significant and require ongoing attention and effort to address.

Tax avoidance activities reflect the use of legal methods to change the financial situation to minimize the amount of income tax owed. Tax avoidance activities not only involve various costs but also such costs can actually outweigh the expected benefits to the shareholders. It is a known fact that the different forms of the ownership structure overlap with the firms’ environment because of the general nature of these firms. Few previous studies have directly investigated the association between the different types of ownership structures and the activities of tax avoidance. Furthermore, the joint influence of the different forms of the ownership structure, with the external audit quality interaction has not been examined in developing countries. Therefore, the purpose of the current study is to examine the impact of the ownership types (family, institutional, managerial and board ownership)
on tax avoidance activities in the Jordanian context and the effect of the external audit quality on these relationships. In addition, the current study has a significant contribution in attempting to differentiate the influence of board ownership and managerial ownership on tax avoidance. Based on panel data of 94 Jordanian-listed firms from 2009 to 2020, the results showed that family and managerial ownership have a positive and significant influence on the tax avoidance activities in the Jordanian-listed firms. These results indicate that the ownership owned by the family and management exacerbates the level of tax avoidance, thereby supporting the hypothesis of the expropriation by Jensen and Meckling (1976), which suggests that the families members and the managers expect to obtain additional benefits from extracting rent through saving some taxes at the expense of other shareholders.

Conversely, the results revealed that the ownership by the board’s members and institutions has a significantly negative impact on the tax avoidance activities in the Jordanian-listed firms. These results indicate that the boards’ ownership and institutional owners in the Jordanian firms avoid tax avoidance activities more aggressively to minimize the firm’s tax liabilities compared with other stakeholders’ counterparts. Regarding the moderating effect, the analysis shows that the audit quality (Big4) moderates the ownership structure–tax avoidance relationship. In general, it can be concluded that the activities of tax avoidance can be indeed mitigated in companies with a high-quality external audit, which indicates that the various types of ownership behave less opportunistically if they are well-audited, especially the Big audit firms’ role in detecting the risky practices of the tax avoidance. The results indicate that the audit firm size (Big4) is not merely symbolic words, but it contributes to reducing and restricting tax aggressiveness. This study has some implications; for example, the study suggests that Jordanian policymakers have to establish additional rules regarding external audit procedures, especially in transitioning market that is seeking to attract additional investors. Consequently, the Jordanian Government needs to raise awareness of the tax among taxpayers, investors and firms by introducing them to their tax duties, as well as the consequences of tax avoidance activities on the economy. In addition, the study suggests that the Jordanian Government needs to review the punishments and fines regarding the tax laws applicable to tax evaders. That is, the government and tax authorities have to emphasize the idea of tax justice and the deterrent Jordanian system to minimize aggressive tax positions and promote tax compliance. Furthermore, the regulators, policymakers and practitioners in the Jordanian context also can use outcomes of this study to address tax avoidance activities and improve CG practices.

Beyond its contribution to prior studies, this study provides useful feedback for authorities and regulatory bodies to consider tax avoidance issues, helps investors take useful decisions and helps the related parties obtain a better understanding of the important functions played by ownership structures and external audit quality in the developing countries. The current study also extends our understanding of the relationship between ownership structure, audit quality and tax avoidance. In addition, this study provides future research with a better insight into the role of a company’s shareholders on its tax compliance. However, very few studies have investigated the tax avoidance issues in Jordan; therefore, more studies need to examine whether the different types of ownership structures (such as foreign and concentrated ownership) and CG mechanisms (such as the board of directors) would increase or reduce tax avoidance activities in a weakly protected environment for the investors. Besides, more studies can focus on the consequences of tax avoidance activities on the market participants. The current study used two proxies of tax avoidance (ETR and CFETR), whereas future studies can use other measures of tax avoidance such as book-tax difference. Future studies can also examine the motives behind tax avoidance activities in Jordan. Nonaudit services provided by external auditors are considered a red flag and their impact on tax avoidance is an important
issue to investigate. Future studies can add some control variables such as some governance scores and social responsibility scores. For future research, there are several issues that need to investigation, especially in the Middle East context, such as level of tax complexity, determinants of the tax compliance, tax knowledge and education and the complexity or simplicity in tax laws. The question in this regard is how can these factors affect the tax avoidance? Investigation in the firm’s characteristics such as leverage, size and profitability of the firm, capital intensity toward the tax avoidance also considered an important subjects for future research. Regarding the consequences of tax avoidance activities, it is important to ask the following question: “Who are penalized? The company, the managers, or the owners?” This kind of investigation has no counterpart in prior studies, suggesting that it can be a significantly promising field for future research. Finally, other limitations need to be considered. For instance, the results of the current study cannot be generalized to the developed markets, given that Jordan is a developing market; therefore, it is important to take into consideration the Jordanian institutional setting. Also, Jordan is a developing economy, which may affect economic or social progress. The research recommended that the tax authorities have to carry out strict tax audit and examine the activities of companies to ensure that tax practices of companies are within the armpit of tax law. The results of this research can be generalized to other developing countries that share similar contextual characteristics.

Notes

4. The CG law requires listed companies in Jordan to disclose the directors’ ownership on the board in a separate category in the annual reports.

References


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