

Who avoids more? Multiple owners on boards and tax avoidance

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Abstract

Purpose - The study examines how multiple types of owners on boards of listed firms influence the level of tax avoidance according to their distinct social context.

Design/Methodology/Approach – The study used sample of 4037 firm-year observations comprising of non-financial firms listed on Pakistan Stock Exchange over the period 2008-2021. We used the ordinary least squares regression method to test the hypotheses and further employed system generalized method of moments to validate our earlier obtained results.

Findings - Based on Strategic leadership perspective and using lens of social identity theory, we report that lone founder ownership, corporate ownership and institutional ownership is associated with higher tax avoidance, whereas, the family ownership and state ownership is associated with lower tax avoidance, in our sample firms.

Originality - While the empirical literature assumes the owners on the corporate board as a homogenous group, we provide novel evidence considering the heterogeneity of firm ownership structure and their varying influence on firm's tax management strategy according to their social values and behavior.

Keywords: Ownership types, lone founder ownership, family ownership, institutional ownership, state ownership, tax avoidance

1. Introduction

The ownership mechanism in the listed corporations is considered an important aspect of corporate governance. While the dispersed ownership is associated with the principal-agent conflict, the concentration of ownership into few hands results in better governance due to low information asymmetry and intense monitoring of management by controlling shareholders (Purkayastha et al., 2019). However, the presence of large shareholders may result in the controlling shareholders exploiting minorities to gain personal advantage leading to principal-principal conflict (Gugler & Yurtoglu, 2003). According to Armitage et al. (2017), the later conflict is mainly visible in the emerging economies with low shareholders protection and weak regulatory frameworks. The different types of ownership mechanism, therefore, affect the corporate governance structure and

firm outcomes in different manners. Empirically, the prior studies categorized the firm owners among the lone founders (e.g., Dawson et al., 2018), family owners (e.g., Berrone et al., 2010), state owners (e.g., Hilling et al., 2021) and institutional owners (e.g., Lin & Fu, 2017), and determine their influence on firm outcomes. However, the research mainly considered the firms' ownership as a homogenous set of owners on corporate boards that restrict the understanding of owners' diversity in the decision making and their influence on firms.

The recent governance literature challenged the homogeneity of ownership structure and considered the corporate boards of the listed firms as composed of heterogenous set of owners with each owner having distinct social behavior that affect the firm outcomes in different manners (Federo et al., 2020). Under this perspective, the firms' boards are not composed of single ownership type, rather it is composed of multiple type of owners with different behavioral patterns and diverse social values that affect the firms' strategic behavior and ultimately affect the firm outcomes. In a similar vein, Organisation for Economic Co-operation and Development (OECD) fact book mentioned that "the traditional concepts of dispersed and concentrated ownership may no longer be sufficient as a basis for understanding and adapting corporate governance frameworks to the more complex landscape of corporate ownership structures in place around the world" (OECD, 2019). Surprisingly, despite of the importance of heterogeneity of ownership on boards and their influence on various firm outcomes, no study exists that examine the influence of multiple type of owners on firms' board and tax avoidance in context of an emerging economy. We are of the view that presence of multiple type of owners on the board affect the firms' objectives and strategies such as tax avoidance in different ways and there exist a significant gap as to the influence of multiple owners on boards on firm's tax avoidance behavior.

According to Federo et al. (2020), the ownership types mainly found in the listed corporations are lone founder ownership, family ownership, corporations, institutional ownership and state ownership. We argue that all these types of ownership have significant impact on tax avoidance behavior of firms. Contextually, we attempt to address the mentioned research gap using all of these ownership types. Unlike, prior studies, that considered only one ownership type (e.g., Hilling, et al., 2021: state ownership) or two ownership types (e.g Rong et al., 2017: institutional ownership and state ownership), our model investigates and include all types of ownership that

mainly exist in our sample firms and determine their impact on tax avoidance. As such, we will use the percentage of equity held by each type of owner as a measure of ownership. On the other side of the equation, the tax avoidance behavior of corporations has attracted significant attraction among the corporate governance researchers due to its impact on firm value and wealth maximization of the owners. Further, in its extreme form, the higher level of tax avoidance may lead to tax evasion that could result in the adverse firm's reputation and risk of bankruptcy. Following Dyreng et al. (2010), the tax avoidance is considered as "anything that reduces the firm's taxes relative to its pre-tax accounting income" and will be measured using two proxies: effective tax rate, and book to tax difference. We shall use social identity theory's perspective to discuss the implications of tax avoidance in case of lone founder ownership and family ownership. Under the social identity theory's framework lone founders strongly associate themselves with their organizations and take decisions from organizational identity perspective, whereas, family owners consider the firm as a socio-emotional wealth and while making business decisions focus on firm's reputation and consider the firm as a legacy to be transferred to next generation (Zellweger et al., 2013). Overall, the strategic leadership framework will be used in support of our hypotheses. According to Cannella et al. (2009), the top management team of the firm such as firm owners affect the strategies of the firms and influence decision making at all levels. Moreover, from this perspective, the strategic decisions of the firm are based on the strategic choice of the owners which shapes the firm's social behaviors and ultimately affect the firm outcomes.

Employing 4037 firm-year observations of non-financial listed firms on Pakistan Stock Exchange, we find that lone ownership, corporate ownership and institutional ownership is associated with higher tax avoidance, whereas, family ownership and state ownership is associated with lower tax avoidance. Our study will contribute to the extant literature in several ways. First, to our knowledge no study examines the effects of multiple ownership type on the corporate board of firm on tax avoidance in an emerging economy. While the prior studies generated notable insights regarding how each type of ownership influence the firm outcomes, our study investigated this relationship considering the heterogeneity of the ownership structure of the firm in an emerging market. In this scenario, we also partially address the research gap mentioned by Federo et al. (2020). The author urged the future researchers to examine the effects of heterogenous ownership on firm outcomes. Second, since most of the firms listed on Pakistan Stock Exchange are family firms, therefore, we

further categorize the family businesses between lone founder ownership and family ownership. In this way, we add to the growing family business literature by investigating the separate effects of lone founder ownership and family ownership on tax avoidance. Though, Brune et al. (2019) examined the family business heterogeneity and tax avoidance in context of German listed firms, our study departs from Brune et al. (2019) on at least two grounds: firstly, the authors mainly focus on the CEO's of family firms that are either descendants or externally hired or the founder himself or herself is acting as a CEO of the firm. Our study, on the contrary, consider the separate effect of lone founder ownership and family ownership along with other ownership types on tax avoidance; secondly, the ownership structure in emerging economies is mainly concentrated and therefore the principal-principal conflict is more pervasive in the emerging economies as compared to developed economies. Moreover, the emerging economies are mainly associated with less stringent regulatory framework and low shareholders protection that motivate the large shareholders to exploit minority shareholders to fulfill their personal agenda, thus making the agency conflict worse. The findings of the study reported in context of developed country, therefore, cannot be generalized to the emerging economies. Overall, we provide novel evidence of ownership heterogeneity on boards and their influence on tax avoidance in an emerging economy.

The rest of the study will proceed in the following manners. Section two will present the literature review and hypotheses development. Section three will discuss the methodology. Results will be presented and discussed in section four. Section five will conclude the study.

2. Literature review and hypotheses development

2.1 Strategic leadership perspective

In organizations, the organizational outcomes are affected by the decision made by the top management team such as owners, board members and executives. According to Mischel (1977), the decisions are made by the executives on the basis of their experience, values, personalities and human characteristics. Relatedly, the strategic leadership is concerned with “the executives who have overall responsibility of an organization – their characteristics, what they do, how they do it, and particularly how they affect organizational outcomes” (Cannella et al., 2009). When faced with complex decision making, the different solutions to the same problem will be offered by

different owners subject to their ego, biases and other personality factors. Thus, we may argue that owners of the listed firms make strategic decisions and actions in the light of their social values, personalities, and their social behavior. Resultantly, the presence of multiple owners on the board, will affect the organizational outcomes according to their social values and social behavior.

2.2 *Social identity theory*

Social identity theory posits that people identify themselves with the social categories on the basis of various factors such as their working organization or social groups. This identification, later, shape their behavior and self-concept (Ashforth & Mael, 1989). In this context, firms are considered as a significant social group to which individuals identify themselves and belongs (Cannella et al., 2015). Foreman and Whetten (2002) mentioned that the strong identification leads to positive behavior and attitude of an individual towards the organization and increases his or her commitment towards the objectives of the enterprise. Relatedly, Gomez-Mejia et al. (2011) mentioned that the family identity and organizational identity urge the family owners and lone founders to maintain control over the firm affairs and set the strategic objectives of the firm. In a similar vein, Miller et al. (2011) mentioned that the family owners in family firms strongly identify themselves with their family and due to their commitment and affiliation, significantly affect the objectives and performance of the firm. Similarly, Block (2012) argued that the lone founders strongly identify themselves with their organization and pursue the economic growth of their firm. The strong identification and affiliation, therefore, urge the family owners and lone founders to provide strategic directions, better governance and stringent management's monitoring (Gomez-Mejia et al., 2011). Overall, the social identity theory points to the economic benefits brought to the firm by family owners and lone founders.

2.3 *Family identity*

The family firm is defined as “one controlled by a family through involvement in management and ownership, coupled with a transgenerational vision for the firm” (Chua et al., 1999; Zellweger et al., 2013). The family firms offer a unique set of ownership pattern due to prominence of non-financial goals by such firms. This is not to say that the family firms do not strive for the financial goals, rather, unlike other ownership types that mainly focus on profit oriented objectives, the primary focus of the family owners is the non-financial goals (Zellweger & Astrachan, 2008). To

achieve family-centered goals and to preserve the socio-emotional wealth, the controlling family owners pursue the non-financial goals (Berrone et al., 2010). Contextually, Gómez-Mejía et al. (2007) related the socio-emotional wealth and identity with the non-financial goals by defining socio-emotional wealth as “nonfinancial aspects of the firm that meet the family’s affective needs, such as identity, the ability to exercise family influence, and the perpetuation of the family dynasty”. The statement not only highlight the fact that the pursuance of non-family goals is the most important aspect of family business research but also highlight the socio-emotional wealth as an important perspective of decision making like risk taking (Zellweger et al., 2013). In a similar vein, Westhead and Cowling (1997) mentioned that it is unreasonable to consider profit maximization as a primary objective of family firms. Thus, we may expect the lower tax avoidance in decision making of family owners.

The family business literature highlights various types of non-financial goals pursued by the family owners such as autonomy and control, family name recognition, respect, status and goodwill in the community (Olson et al., 2003). In this context, the desire to achieve non-financial family centered goals, drive the desire among the family owners for a strong firm’s reputation. Berrone et al. (2010) noted that these family centered non-financial goals shape the identity claims of the family. Weigert and Hastings (1977) defined family identity as “the meaning that family members attach to the family for internal processes of self-verification”. From social psychology’s perspective, the family identity is associated with interpersonal relationships and internalized set of behavioral expectations that exist in the relationships. These interrelationships may include the mutual support and positive affection and feeling among the family members. Moreover, as indicated by Choi et al. (1997) these relational connections among families shifts across various social settings and cultures.

2.4 *Organizational identity*

Organizational identification is “the degree to which a member defines himself or herself by the same attributes that he or she believes define the organization” (Dutton et al., 1994). The organizational identity consists of the core values and beliefs of an organization which its members consider more central and enduring, and is revealed to the external stakeholders through behavior, symbolism and communication. According to Nag et al. (2007) the organizational identity reflects

the member's collective view of "who we are as an organization" and "what we do as a collective". The organizational identity is therefore a clear reflection of the social behavior of the organizational members. Relatedly, unlike family owners who are more concerned about the family identity, the lone founders primarily focus on organizational identity and strongly identify themselves with the organization. In a similar vein, Dobrev and Barnett (2005) mentioned that "the founder's identity is tightly linked to that of the organization and to its innovative endeavors". Thus, we may say that under the organization identity's perspective, the lone founders strongly identify themselves with their firm and take the decisions under this frame of mind.

2.5 *Tax avoidance*

Tax avoidance has been defined by Dyreng et al. (2010) as "anything that reduces the firm's taxes relative to its pre-tax accounting income". In this context, Hanlon and Heitzman (2010) categorize the tax avoidance on the basis of three stage of continuum. The first stage "benign" is associated with developing tax strategies under the legal framework, such as carrying forward of losses and claiming the tax rebates, that are both socially acceptable and fully covered under the relevant laws. The second stage is characterized by opting for more aggressive strategies by taking advantages of loopholes in the taxation system, and finally, getting involved in illegal tax evasion, at the third stage of the continuum. The tax avoidance thus not necessarily involve tax evasion but may also be considered a proper mechanism to avail tax allowances and rebates (Dyreng et al., 2008). Further, tax avoidance on one hand, may increase the availability of cash flows for the firm (Kovermann & Wendt, 2019), however, on the other hand it may entail heavy cost in the form of penalties and interests, and reputation risk if not allowed by tax authorities (Rego & Wilson, 2012). The tax avoidance, thus, could be considered as "risky investment opportunity" for the firm (Armstrong et al., 2015).

From the agency theory's perspective, the separation of ownership and management between the shareholders and managers result in the divergence of interest between both parties (Jensen & Meckling, 1976). Contextually, the managers opt for risk averse behavior for the fear of loss of job and therefore inclined to invest in less risky projects (Kovermann & Wendt, 2019). Consequently, in contrast to the shareholders that are desirous of more cash flows for the firms through aggressive tax avoidance, managers on the other hand, are associated with less tax

avoidance. In such scenarios, the misalignment of the interest between the two parties result in less tax avoidance in firms with dispersed ownership (Armstrong et al., 2012).

2.6 *Lone founder ownership and tax avoidance*

Lone founder ownership is characterized by the presence of single owner-founder who setup the business and holds major equity of the firm (Dawson et al., 2018). While the earlier literature did not differentiate between the lone founder ownership and family ownership, the recent studies distinguished between the two types and consider the family businesses as a heterogeneous business structure. Relatedly, the Miller et al. (2007) defined the lone founder firm as a firm in which the family founder is mainly involved in executive decision making and hold major stake in the firm. Moreover, no family member is involved in the executive management or exist as a larger shareholder. In a similar vein, Zellweger et al. (2013) mentioned that unlike the family owners, the lone founders do not consider the firm as a legacy to be transferred to next generation and restrict the family involvement in business and resultantly, family interests are not given preference. In this context, Block (2012) noted that since lone founders are actively involved in business setup and development since inception, therefore, they have better insight of the business and take decisions that directly benefit the firm. Relatedly, James (2006) highlighted that lone founders enjoy freedom to take risky decisions and undertake riskier firm's growth strategies to maximize firm's value. Thus, we may assume that in order to maximize the firm value, the lone founders opt for the higher tax avoidance and consider it as a risky investment opportunity. We, therefore, hypothesize that:

H1: Lone founder ownership is associated with higher tax avoidance

2.7 *Family ownership and tax avoidance*

The family firms are mainly characterized by the large number of equity held by a family and existent of family members in the higher management resulting in stringent control over the operations of firm (Gaaya et al., 2017). From the social identity theory's perspective, the family owners in a family firm strongly identify themselves with their respective firm and their higher commitment and affiliation, significantly affect the objectives and performance of the firm (Miller et al., 2011). In this scenario, they consider the firm as a legacy to be transferred to next generation

and thus focus on long term benefits (Casson, 1999). Consequently, they avoid their involvement in excessive tax avoidance as it may hurt the firm's reputation and higher penalties. In this context, Chen et al. (2010) reported presence of lower tax avoidance in family firms than non-family firms. From agency theory's perspective, the higher tax avoidance practices are highlighted in the family firms due to principal-principal conflict. In a bid to cover the details of any kind of rent extractions, hide losses, and mislead the minority investors, the family owners engage themselves in aggressive tax avoidance (Kim et al., 2011).

Empirically, the relationship between family ownership and tax avoidance has been discussed in the literature but provide contradictory findings. For instance, Gaaya et al. (2017) reported the higher tax avoidance in the family firms in context of Tunisian listed firms. Similarly, López-González et al. (2019) reported positive association between tax avoidance practices and family ownership in their sample of 28 countries. Kovermann and Wendt (2019) also highlighted the higher tax avoidance in family firms in Germany. On the other hand, Chen et al. (2010) found that family firms are less engaged in tax avoidance in a large sample of USA firms. Similarly, Steijvers and Niskanen (2014) reported less tax avoidance in family firms in Finland.

We argue that due to strong affiliation and commitment, and strong desire for the firm reputation, the family owners in family firms are associated with low level of tax avoidance. We, therefore, hypothesize that:

H2: Family ownership is associated with lower tax avoidance

2.8 *Corporate ownership and tax avoidance*

The corporate ownership is characterized with the primary focus on firms' growth strategies and synergy in their portfolio. According to Aguilera et al. (2020), this type of ownership is more significant in emerging economies where they substantially contribute to the economic growth. Further, they are more long term oriented and often invest in related products to achieve the strategic growth (Desender et al., 2013). In a similar context, Ma et al. (2020) argued that in order to "fix their weaknesses" and "build on their strength" the corporations invest in the companies with related technology, to gain competitive edge and improve innovative capabilities. The shared

objectives and desire for higher profits result in active monitoring of management's action and pressure on management to make quick profit making decisions. Thus, we may assume higher tax avoidance in presence of corporate owners. Empirically, Kinney and Lawrence (2000) found that USA corporations pay lower taxes in their host countries. Similar results were reported by Annuar et al. (2014) in case of Malaysian listed firms. On the same grounds, we hypothesize that:

H3: Corporate ownership is associated with higher tax avoidance

2.9 *Institutional ownership and tax avoidance*

Institutional investors are considered another important mechanism of corporate governance due to their significant influence on company's management because of substantial shareholding (Shleifer and Vishny, 1986). Their active participation in the decision making, therefore, restrict the divergent behavior of management and align the interest of both the parties. Mainly, institutional shareholders comprises of mutual funds, pension funds and other investments Trust such as National Investment Trust (Aguilera et al., 2020). Like other forms of concentrated shareholdings, this type of ownership can resolve the agency conflict through their active participation and on the other hand their presence can worsen the agency conflict due to their access to inside information and using it to exploit minority shareholders. From investment point of view, according to Ferreira and Matos (2008), the institutional investors prefer diversified portfolio with high values and lower returns. Similarly, Connelly et al. (2010) mentioned that while some of the institutional investors are willing to hold equity for a longer time, the others prefer frequent trading and quicker return.

From the tax avoidance point of view, the behavior of institutional investors can be examined from the long and short oriented perspective. In this scenario, the long-term oriented investors primarily consider the long term growth of the firm and avoid any action that could adversely affect the firm's reputation. Thus, we may assume lower tax avoidance in this case as the higher level of tax avoidance may attract the tax penalties and bring bad reputation for the firm. On the contrary, the short term oriented investors are desirous of short term profits and immediate profits on their investment. In this context, we may assume higher tax avoidance since it results in lesser payment of tax and higher profits. Empirically, Khan et al. (2017) found higher tax avoidance in presence

of institutional investors, whereas, Khurana and Moser (2013) found lesser tax avoidance in presence of institutional investors. Overall, we hypothesize that:

H4: Institutional ownership is associated with higher tax avoidance

2.10 State ownership and tax avoidance

The state ownership represents a distinct set of ownership wherein the entity is owned by the state mainly to achieve the economic and political motives. Since the primary goal is the fulfillment of the political agenda, therefore, strategic and financial returns are often sacrificed (An et al., 2016). The relationship between state ownership and tax avoidance has been discussed in the prior literature from two different sides. On one side, Chan et al. (2013) argued that the key motive of the state owned firm is the fulfillment of political and social agenda. Since, maximization of firm value is not the primary motive of such firms, therefore, low tax avoidance is found in state owned firms. The author examined the sample of Chinese listed firms and reported lower tax avoidance in state owned firms. Similar results were reported by Ha and Phan (2017) in case of Vietnamese listed firms. On the other side, some studies concluded the opposite. For instance, Zhang et al. (2012) noted that due to political cover enjoyed by the state owned firms, the directors have incentive to avoid tax to enjoy personal wealth maximization and other benefits. The strong political influence motivates such firms to indulge in tax avoidance as there are minimum chances of any tax penalties. Summing up, we argue that the state ownership is mainly concerned with the political and social agenda fulfillment and does not have incentive to avoid tax to maximize firm value. We, therefore, hypothesize that:

H5: State ownership is associated with lower tax avoidance

3. Methodology

3.1 Sample selection

The data for our study was collected from the annual report and financial statements of the companies available on website of Pakistan Stock exchange and website of the respective company. We excluded the financial firms since they operate under separate regulatory framework

and possess different financial characteristics. After excluding financial firms and firms with missing information our final sample consists of unbalanced panel data of 4037 firm year observations over the period 2008-2021. The panel A of table I depicts the sample selection criteria, whereas, panel B and panel C shows the sector-wise composition and year-wise composition of sample, respectively.

{Insert table I around here}

3.2 *Variable measurement*

Prior studies (e.g., Dyreng et al., 2008; Frank et al., 2009) measured tax avoidance using different proxies, such as: effective tax rates (ETR) and book to tax difference (BTD). ETR is measured by dividing total tax expense by income before tax and, is considered as a better measure since it is capable of capturing the reduction in tax availed due to tax shelters and loopholes existing in taxation laws (Dyreng et al., 2017). Moreover, it is an inverse function of tax avoidance, as the lower ETR values represents higher tax avoidance. Another measure of tax avoidance, used in the literature is book to tax difference, which is measured by subtracting pre-tax income from taxable income and dividing by statutory tax rate. While the ETR is an inverse function of tax avoidance, conversely, the higher BTD value represents higher tax avoidance and reflects aggressive tax behavior of the firm. Consistently, this study used both the said measures as a proxy to the dependent variable, tax avoidance.

Our independent variable, ownership types comprise of five kinds of ownership mainly found in our sample firms. Following Block (2012), lone founder ownership was considered where the following criteria was met: first, a single person holds 5% or more equity capital of the firm; second, the person is also a founder of the firm; third, no other person related to founder held more than 5% stake in the firm's equity. If all the said conditions are met, then the firm will be considered as lone founder owned firm and the percentage of equity held by lone founder was used to measure the variable. Family ownership was measured as the percentage of equity held by family (Villalonga & Amit, 2006), corporate ownership was measured as the equity percentage held by the corporations, institutional ownership was measured as the equity percentage held by the mutual

funds and pension funds, and finally the state ownership was measured as the percentage equity held by the state or the institution owned by state (Ha & Phan, 2017).

The study also employed control variables to control for the governance and financial characteristics of the firm. Consistently, board size and board independence were used to control for the governance characteristics, whereas, return on assets, basic earning price ratio, market to book ratio, sales, firm age, firm size and leverage were used to control for the firm characteristics (Nekhili et al., 2020). Table II shows the nature, symbol and measurement of all the variables used in the study.

{Insert table II around here}

3.3 *Econometric methodology*

In order to test the hypotheses, following model was developed:

$$\begin{aligned}
 TAX_AVOID_{i,t} = & \alpha_{i,t} + \sum_{j=1}^5 \beta_j ownership\ types_{i,t} + \beta_k BD_SIZE_{i,t} + \beta_l BD_IND_{i,t} + \beta_m ROA_{i,t} \\
 & + \beta_n BEPR_{i,t} + \beta_o MTB_{i,t} + \beta_p SALES_{i,t} + \beta_q F_AGE_{i,t} + \beta_r F_SIZE_{i,t} + \beta_s LEV_{i,t} \\
 & + \sum_{t=1}^u \beta_t Industrydummy_{i,t} + \sum_{v=1}^w \beta_v yeardummy_{i,t} + \epsilon_{i,t} \quad (1)
 \end{aligned}$$

Whereas, tax avoidance is our dependent variable measured using two proxies: ETR and BTD; ownership types are our independent variables and comprises of five types of ownership: lone founder, family, corporation, institutional, and state; α is the intercept of the model; industry and year dummy are included; $\beta_j - \beta_v$ are the regression coefficients; ϵ is the error term; and i represents firm i at time t . All variables are explained in table II.

4. Results and discussion

4.1 Descriptive statistics

The descriptive statistics of all the variables are reported in table III. The table shows mean of our dependent variables ETR and BTD as 0.21 and 0.11, respectively. The mean of lone founder ownership is 5%, mean of family ownership and corporate ownership is 30%, mean of institutional ownership is 9% and mean of state ownership is 4%. The stats shows that mainly our sample firms are under family ownership and corporate ownership, and lesser firms belongs to other ownership types. Regarding control variables, mean of BD_SIZE is 7.91 or 8 members which is consistent with minimum board size of 7 as per regulatory framework. Mean of BD_IND is 12%; mean of ROA is 6.43; mean of BEPR is 0.12; mean of MTB is 2.45; mean of sales is 21.71; mean F_AGE is 28 years; mean of F_SIZE is 22.78; and mean of LEV is 13%.

{Insert table III around here}

4.2 *Pearson correlation*

The Pearson correlation of all the variables is reflected in table IV. The results shows that all of our main variables are in the direction of hypotheses. In cases of LONE, CORP and INST negative correlation was found in case of ETR (LONE: -0.077**; CORP: -0.018*; INST: -0.002*) and positive correlation was found in case of BTD (LONE: 0.062**; CORP: 0.019*; INST: 0.060**). Similarly, positive correlation between FO and ETR (0.015*), and STATE and ETR (0.020*) was found, whereas, negative correlation was found between FO and BTD (-0.031*), and STATE and BTD (-0.011*). Overall, our results extend partial support to our hypotheses.

{Insert table IV around here}

4.3 *Ordinary least squares regression*

In order to test the hypotheses, ordinary least squares regression was employed. The regression results are depicted in table V. Under hypothesis H1, we hypothesized that lone ownership is associated with higher tax avoidance. We argue that lone founders are mainly concerned with the growth of firm instead of transference of business to the next generation and focus more on firm's growth. Therefore, more aggressive tax management is expected. Our hypothesis H1 and our argument was supported, as we found significance association between LONE and both measures of tax avoidance: ETR (-0.331**), and BTD (0.155*). As mentioned earlier, the ETR is an inverse

proxy of tax avoidance and less tax effective rate shows lesser tax payment and higher tax avoidance. Therefore, negative relationship between ETR and LONE reflects higher tax avoidance. On the contrary, the higher value of BTD shows the higher tax avoidance. Thus, our results are in the direction of the hypothesis.

Under hypothesis H2, we hypothesized that lower tax avoidance is observable in family ownership. We argue that the family owners consider the family businesses as a legacy to be transferred to next generation and consider the firm as an endowment. In order to avoid any risk of bankruptcy and bad reputation that may arise due to tax and other government penalties, the family owners resort to less tax avoidance. Our hypothesis H2 and our argument was supported as we found significant positive association in case of ETR (0.015*) and significant negative association in case of BTD (-0.011**). Empirically, our results were consistent with Chen et al. (2010) and Steijvers and Niskanen (2014), who reported less tax avoidance in family firms in case of USA and Finland, respectively.

Our hypothesis H3 states that corporate ownership is associated with higher tax avoidance. We argue that the corporate owners are desirous of quick profit and mainly short-term oriented. Therefore, the higher tax avoidance is expected. Our argument was supported as we found negative association between CORP and ETR (-0.022**), and positive association in case of CORP and BTD (0.009**).

Under hypothesis H4, we hypothesized that institutional ownership is associated with higher tax avoidance. We argue that institutional investors in our sample firms are mainly short term oriented, desirous of short term profits and immediate profits on their investment, therefore, the aggressive tax behavior is expected. Again, our hypothesis H4 and our argument was supported, as we found significant negative association between INST and ETR (-0.034*) and, significant positive association between INST and BTD (0.111**). In this context, our results were consistent with Khan et al. (2017) who found higher tax avoidance in presence of institutional investors.

Finally, under hypothesis H5, we hypothesized that state ownership is associated with lower tax avoidance. We argue that the state ownership is mainly concerned with the political and social

agenda fulfillment and does not have incentive to avoid tax to maximize firm value. Our results shows that our hypothesis H5 and our argument was supported as we found significant positive association between STATE and ETR (0.036*) and, significant negative association between STATE and BTD (-0.005*). Empirically, our results confirm the findings of Chan et al. (2013) and Ha and Phan (2017) who found the lower tax avoidance in case of state ownership in context of China and Vietnam.

{Insert table V around here}

4.4 Two-step generalized method of moments

According to Ullah et al. (2018), the Ordinary least squares model is unable to control for the unobserved heterogeneity and simultaneity, which may lead to biased results. In this scenario, the generalized method of moments is considered as a better method that control for the “three major sources of endogeneity: unobserved heterogeneity; simultaneity; and dynamic endogeneity”. Thus, we further employed the system generalized method of moments to confirm the earlier obtained results. The results reported in table VI, confirm our earlier obtained results.

{Insert table VI around here}

5. Summary and conclusion

Our study examines the influence of different type of owners on tax avoidance in non-financial firms listed on Pakistan Stock Exchange. The study contributes to the extant literature in several ways. First, unlike previous studies that examined the influence of owners such as family owners, institutional owners and state owners on tax avoidance in isolation, we provide novel evidence by examining the combined influence of all the owners on the firm’s board and how they influence tax decisions. We based our framework on the assumption that different kind of owners behaves differently due to distinct social context and social behavior of each type of owners. As such, we examined the ownership heterogeneity on tax avoidance in our sample firms. Second, among the other ownership types, we segregated the lone founder ownership and family ownership, and examined their distinct social behavior under the social identity theory’s perspective and their influence on tax avoidance. As such, we complement the family business literature by categorizing

the family businesses into lone founder ownership and family ownership. Since most of the firms listed on Pakistan stock Exchange are family businesses, therefore, our findings generate novel insight into the distinct social behavior of both types of ownership and their influence on tax avoidance in an emerging economy. Overall, we provide novel evidence of ownership heterogeneity on boards and their influence on tax avoidance in an emerging economy.

The study employed 4037 firm-year observations of non-financial listed firms over the period 2008-2021. We employed ordinary least squares regression to test our hypotheses and further employed system generalized method of moments estimation to control for the unobserved heterogeneity and to confirm our earlier obtained results. Under Hypotheses H1, H3 and H4, we hypothesized that lone founder ownership, corporate ownership and institutional ownership is associated with the higher tax avoidance. We highlight that lone founder are more growth oriented and corporate owners and institutional owners are more short term oriented, therefore, they prefer aggressive tax strategies. Similarly, under hypotheses H2 and H5 we argue that family ownership and state ownership is associated with lower tax avoidance. In this scenario, we report that family owners are less involved in tax avoidance for the sake of firm's reputation and risk of bankruptcy and, the state owners are mainly concerned with the political and social agenda fulfillment and therefore, avoid higher tax avoidance. Methodologically, we used two proxies, ETR and BTDR, to measure tax avoidance and in all cases our hypotheses were supported. Empirically, our results are consistent with the prior studies in this context.

Pakistan is an emerging economy and like other developing and emerging economies, the economy of Pakistan is heavily dependent upon the domestic and foreign investment to meet the budget deficit. In this context, our results offer deep insight to the prospective investors to diversify their portfolio according to the social behavior of owners on the board of the listed firms. Our results suggest that different owners on the board behaves differently towards the tax avoidance and therefore influence the firm value in different ways. Our results also offer important implications for regulators and tax authorities. The behavior of family businesses listed in Pakistan Stock Exchange towards the tax avoidance highlights the distinct profit motives and tax management strategies of lone founders and family owners. Our findings in this respect enrich the regulators

and tax authorities regarding the higher tax avoidance in case of lone founders and lower tax aggressive behavior in family owned firms.

Like other studies, our study suffers from some limitations that could serve as directions for future researchers. First, the study only examined the influence of multiple types of owners on one aspect of firm outcome: tax avoidance. The future studies could examine their influence on other firm outcomes such as financial performance and social performance. Second, while this study only considered the non-financial listed firms, the same model can be replicated on financial firms listed on Pakistan Stock Exchange. Finally, the examination of this nexus in other emerging economies may help the generalizability of the results of this study in context of emerging economies.

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Table I: Sample construction

Panel A: Sample selection	
Initial observations of all listed firms for the period 2008 to 2021	7098
Less: Firm observations of financial firms	1891
Less: number of firm-year with missing observations	1170
Final sample	4037

Note: The panel reports the sample selection criteria used in the study

Panel B: Industry-wise composition of sample			
Sector	Observations	Percentage	
Automobile assembler	154	3.81	
Automobile parts & accessories	90	2.23	
Cable & electrical goods	70	1.73	
Cement	250	6.19	
Chemicals	304	7.53	
Engineering	140	3.47	
Fertilizer	76	1.88	
Food & personal care products	266	6.59	
Glass & ceramics	105	2.6	
Leather & tanneries	42	1.04	
Miscellaneous	195	4.83	
Oil & gas exploration companies	56	1.39	
Oil & gas marketing companies	98	2.43	
Paper & board	89	2.2	
Pharmaceuticals	139	3.44	
Power generation & distribution	160	3.96	
Real estate investment trust	7	0.17	
Refinery	56	1.39	
Sugar & allied industries	350	8.67	
Synthetic & rayon	84	2.08	
Technology & communication	152	3.77	
Textile composite	437	10.82	
Textile spinning	498	12.34	
Textile weaving	84	2.08	
Tobacco	42	1.04	
Transport	51	1.26	
Vanaspati & allied industries	28	0.69	
Woollen	14	0.35	
Total	4,037	100	

Note: The panel reports the industry-wise composition of the sample used in the study.

Panel C: Year-wise composition of sample

Year	Observations	Percentage
2008	265	6.56
2009	269	6.66
2010	273	6.76
2011	276	6.84
2012	278	6.89
2013	280	6.94
2014	286	7.08
2015	293	7.26
2016	296	7.33
2017	300	7.43
2018	303	7.51
2019	304	7.53
2020	307	7.60
2021	307	7.60
Total	4037	100

Note: The panel reports the year-wise composition of the sample.

Table II: Variable measurement

Nature	Variable	Symbol	Measure
Dependent variables	Effective tax rate	ETR	Total tax expense divided by income before tax
	Book tax difference	BTD	Pre-tax income minus taxable income divided by total assets
Independent Variables	Lone founder ownership	LONE	The percentage of equity held by lone founder, whereas, lone founder ownership was considered where following criteria was met: a single person holds 5% or more equity capital of the firm; the person is also a founder of the firm; no other person related to founder held more than 5% stake in the firm's equity.
	Family ownership	FO	The percentage of equity held by family
	Corporate ownership	COPR	The percentage of equity held by corporate shareholders
	Institutional ownership	INST	The percentage of equity held by institutional shareholders
Control Variables	State ownership	STATE	The percentage of equity held by State
	Board size	BS	Number of directors on the board
	Board independence	BIND	Independent directors on the board divided by total directors on the board
	Return on assets	ROA	Net profit divided by total assets
	Basic earning power ratio	BEPR	Earning before interest and taxes divided by total assets
	Market to book equity ratio	MBE	Market value of equity/book value of equity
	Sales	SALES	Log of annual sales
	Firm age	F_AGE	Number of years since the firm is listed on stock exchange
	Firm Size	F_SIZE	Log of total assets
	Leverage	LEV	Total debt divided by total assets

Note: The table shows the nature, symbol and measurement of all the variables used in the study.

Table III: Descriptive statistics

Variable	N	Mean	SD	Min	Max
ETR	4037	0.21	0.08	0.03	0.48
BTD	4037	0.11	0.03	0.07	0.57
LONE	4037	0.05	0.02	0.00	0.34
FO	4037	0.30	0.09	0.00	0.81
CORP	4037	0.30	0.11	0.00	0.94
INST	4037	0.09	0.06	0.00	0.39
STAT	4037	0.04	0.05	0.00	0.92
BS	4037	7.91	0.06	0.00	13.00
BIND	4037	0.12	0.05	0.00	0.56
ROA	4037	6.43	0.08	-18.51	26.14
BEPR	4037	0.12	0.12	-0.12	0.51
MTB	4037	2.45	0.03	0.02	21.71
SALES	4037	21.71	0.07	0.00	27.80
F_AGE	4037	28.47	0.08	1.00	72.00
F_SIZE	4037	22.78	0.02	19.03	26.56
LEV	4037	0.13	0.08	0.01	0.71

Note: The table reports number of observations, mean, standard deviation, minimum and maximum of all the variables reported in the study.

Table IV: Pearson correlation																
Variables	ETR	BTD	LONE	FO	CORP	INST	STATE	BS	BIND	ROA	BEPR	MTB	SALES	F_AGE	F_SIZE	LEV
ETR	1															
BTD	-0.018	1														
LONE	-0.077**	0.062**	1													
FO	0.015*	-0.031*	0.290*	1												
CORP	-0.018*	0.019*	0.026	0.685*	1											
INST	-0.002*	0.060**	0.005	0.149*	0.052*	1										
STATE	0.020*	-0.011*	0.052**	0.168*	0.098**	0.008	1									
BS	0.025	0.110*	-0.014	0.001	-0.011	0.077**	-0.052*	1								
BIND	0.060***	0.038*	-0.039*	0.010	0.063*	-0.037*	-0.050*	0.158*	1							
ROA	-0.024	0.018	0.009	0.016	0.001	0.022	-0.057*	0.013	0.016	1						
BEPR	-0.011	0.020	0.013	0.001	0.047**	0.020	-0.026	0.036*	0.064***	-0.011	1					
MTB	0.016	0.017	0.039*	0.008	0.005	-0.004	-0.048*	0.058**	0.061***	0.002	0.000	1				
SALES	0.003	0.038*	0.018	0.010	0.017	-0.042*	0.001	0.045*	0.063*	0.089**	0.005	0.041**	1			
F_AGE	0.038*	0.065**	0.027	0.019	0.067**	-0.046*	-0.002	0.059**	0.034*	0.035*	0.046**	0.019	0.000	1		
F_SIZE	0.052**	0.013	0.008	0.012	-0.030	-0.072*	-0.002	0.035*	-0.013	0.074**	0.041**	0.039*	0.029	0.016	1	
LEV	0.019	0.014	0.003	0.029	-0.047**	-0.061*	0.002	0.035*	-0.025	-0.009	0.014	0.017	0.007	-0.051**	0.130**	1

Note: The table reports the Pearson correlation of all the variables used in the study.

Table: V Ordinary least squares regression-ownership type and tax avoidance

[illegible]

Observations	4037	4037	4037	4037	4037	4037	4037	4037	4037	4037
R-squared	0.35	0.34	0.34	0.36	0.34	0.31	0.30	0.31	0.34	0.31

Note: The table reports the ordinary least squares regression of ownership types and tax avoidance. Standard errors are reported in parentheses. *,**,*** indicates significance at 10%, 5% and 1% level of significance.

Table VI: Generalized method of moments estimation - ownership type and tax avoidance

Variables	ETR					BTD				
	1	2	3	4	5	6	7	8	9	10
L.ETR	0.675*** (0.030)	0.676*** (0.029)	0.670*** (0.028)	0.676*** (0.029)	0.671*** (0.029)					
L.BTD						0.453*** (0.078)	0.450*** (0.077)	0.451*** (0.078)	0.453*** (0.078)	0.454*** (0.078)
LONE	-0.066** (0.063)					0.072 (0.049)				
FO		0.003* (0.011)					-0.011 (0.008)			
CORP			-0.002** (0.011)					0.005 (0.010)		
INST				-0.021** (0.047)					0.049 (0.037)	
STATE					0.016* (0.033)					-0.023 (0.019)
BS	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.004 (0.002)	0.004 (0.002)	0.005 (0.002)	0.004 (0.002)	0.003 (0.002)
BIND	0.027 (0.022)	0.028 (0.022)	0.029 (0.023)	0.028 (0.022)	0.028 (0.022)	0.012 (0.016)	0.013 (0.016)	0.012 (0.016)	0.014 (0.016)	0.012 (0.016)
ROA	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.003 (0.001)	0.002 (0.001)	0.001 (0.001)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)
BEPR	0.007 (0.023)	0.009 (0.023)	0.008 (0.023)	0.009 (0.024)	0.008 (0.023)	0.024 (0.018)	0.021 (0.018)	0.023 (0.018)	0.022 (0.018)	0.022 (0.018)
MTB	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.000)	0.001 (0.000)	0.001 (0.000)
SALES	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
F_AGE	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
F_SIZE	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.002 (0.001)
LEV	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)
Constant	-2.589*	-2.597*	-2.606*	-2.583*	-2.605*	1.398	1.403	1.416	1.360	1.410

	(0.087)	(0.087)	(0.085)	(0.083)	(0.082)	(0.070)	(0.067)	(0.074)	(0.070)	(0.067)
Observations	3730	3730	3730	3730	3730	3730	3730	3730	3730	3730
Industry dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Year dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Arellano Bond (AR 1)	0.003	0.001	0.001	0.000	0.000	0.013	0.013	0.013	0.013	0.013
Arellano Bond (AR 2)	0.361	0.360	0.361	0.362	0.363	0.241	0.243	0.242	0.241	0.241
Sargan test (p-value)	0.451	0.401	0.411	0.395	0.381	0.460	0.0413	0.401	0.388	0.381
Hansen test (p-value)	0.186	0.195	0.195	0.196	0.193	0.016	0.016	0.015	0.015	0.016

Note: The table reports the system generalized method of moments estimation of ownership types and tax avoidance. Standard errors are reported in parentheses. *, **, *** indicates significance at 10%, 5% and 1% level of significance.

