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AUDITOR SELECTION, CORPORATE GOVERNANCE AND CUSTOMER FIRM CHARACTERISTICS: A STUDY ON BORSA ISTANBUL (BIST)

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Abstract

Corporate governance mechanism and independent auditing are important factors ensuring that the financial reporting system operates in an effective and quality manner. Hence, independent auditor selection is of significant importance for providing reliable information to the financial table users as well as for increasing auditing quality. The aim of this study is to investigate the impact of corporate governance applications and firm characteristics on independent auditor selection. The study covers the period between 2015-2018. A total of 583 firm-year observations on sectors traded at Borsa Istanbul were analyzed via logistics regression model. Whether or not the firms work with the Big Four auditing firms was used as an auditor selection indicator. In addition, while the number of independent members in the executive board, ownership concentration (share of the largest shareholder, share of the second largest shareholder, share of the third largest shareholder and free float ratio) and the number of auditing committee members were used as corporate governance indicators; firm size, leverage and return on assets (ROA) were used as indicators of firm characteristics. Based on the analysis results, a positive and statistically significant correlation was observed between the number of independent members, share of the largest shareholder, firm leverage, ROA and auditor selection. Moreover, the findings also point out a statistically significant relationship between firm year used as control variable and auditor selection.

Key words: Auditing, Auditor selection, Corporate Governance, Firm Characteristics.

JEL Code: M41, M42

1. Introduction

Independent auditing mechanism is required to adopt an effective corporate governance understanding, to ensure an increase in the trust towards capital markets and most importantly to attain transparent financial reporting of high quality (Tuan,

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2015:34). Firm scandals that took place especially in the United States of America during the beginning of the 2000s coupled with the fact that the auditing firms were also part of the process resulted in literature discussions on corporate governance and independent auditing (Bekçi and Gör, 2015:168). Independent auditing has an important impact on the quality of financial reports and the accuracy of the information in these reports. In this regard, a quality auditing service is considered as an important mechanism of monitoring for reducing the issues of representation resulting from information asymmetry between the executive and shareholders which can be eliminated by way of accurate and reliable financial statements (Jensen and Meckling, 1976). Latest regulations on generally accepted auditing standards, financial reporting standards and legal enforcements in capital markets also put forth the importance of independent auditing on financial reporting (Zengin Karaibrahimoğlu,2013: 273). Independent auditing provides various advantages to firms with regard to reducing internal issues, increasing efficiency, decreasing capital cost, adapting to legal regulations as well as reducing the erroneous actions of executives (Knechel et al., 2008).

Auditing quality is closely related with the independent audit revealing the irregularities in financial statements and its effectiveness during the financial reporting period. Hence, an effective and high-quality audit plays an important role in the selection of the auditor as well which is one of the most important decisions taken by the firm (Broye and Weill, 2008). In this regard, there are many factors that play a role on auditor selection which is related with audit quality. These factors may be related with the characteristics of the auditing firm (whether it is one of the four large auditing firms, the industry expertise of the auditor, the duration of time that the auditor works with the customer firm etc.), the corporate structure of the customer firms (executive board structure, ownership structure, auditing committee structure etc.) or firm specific characteristics (debt, size, profitability etc.).

While there are many studies in developed countries that examine the factors affecting auditor selection; the number of such studies is limited in emerging markets including Turkey. Hence, the objective of the present study is to examine whether corporate governance applications and firm characteristics play a role on auditor selection or not. A total of 583 firm-year observations from different sectors were used in the study during which 2015-2018 data were used for Borsa Istanbul firms. A positive and statistically significant relationship was determined as a result of the analysis carried out between auditor selection and the number of independent members in the executive board and the capital share of the largest shareholder which are among the corporate governance indicators. Moreover, a positive and statistically significant relationship was also determined between leverage and ROA used as firm characteristic indicators and auditor selection.

The study is comprised of six sections. The second section after the introduction provides a general overview of the independent auditing applications in Turkey. A literature survey has been carried out in the third section. While the fourth section explains the study method; the fifth section provides information on the analysis results. A general evaluation of the study is presented in the concluding section.

2. Literature Survey and Hypothesis Development

Independent Members and Auditor Selection

Executive boards as the most important elements of corporate governance comprise a strong internal control mechanism developed for monitoring the upper management and business activities. The most important objective of an executive board is to protect the benefits of shareholders by monitoring the activities of managers while also minimizing the agency costs resulting from conflicts between managers-shareholders (Fama and Jensen, 1983). Hence, the presence of independent members is very important for executive boards. Because independent members are able to use the control and monitoring mechanisms more effectively thus protecting the benefits of shareholders better. Moreover, independent members can also monitor the financial reporting process more effectively since they are able to access firm specific information that the other independent members cannot. Thus, it can be stated that the independent members play an important role in auditor selection in order to protect the reputation of the firm as well as the benefits of the shareholders. (Carcello et al., 2002). It is observed that many studies have been carried out in literature regarding this possible effect. Some of these studies have been summarized below:

Beasley and Petroni (2001) carried out studies on insurance firms as a result of which they put forth a positive and statistically significant correlation between the big four audit firms used as auditor selection indicator and the number of independent members. Similar results have also been obtained in various other studies (Carcello et al., 2002; Abdullah et al.,2008; Mayoral and Segura, 2008; Soliman and Elsalam, 2012; Terzi et al., 2014; Leung and Cheng, 2014; Matonti et al., 2016; Abidin et al., 2016; Özcan, 2018).

The following hypothesis was developed in the present study taking into consideration that the independent members in the executive board may influence the selection of auditors in order to protect the reputation of the firm and the benefits of the shareholders more effectively.

H1: There is a positive correlation between the number of independent members in the executive board and auditor selection.

Ownership Concentration and Auditor Selection

Ownership concentration denotes the distribution of shares between the shareholders and is measured using the capital share of the largest shareholder, shares of the second, third and fourth largest shareholders and free float ratio. While an increase in the shares of the shareholders increases ownership concentration, decreases in the shares of the shareholders result in the decrease of ownership concentration (Tanrıöven and Aksoy, 2010). Majority shareholders can intervene with the financial reporting process in businesses with high ownership concentration in order to maximize their benefits which may lead to disagreements among majority and minority shareholders (Shleifer and Vishny, 1997). Hence, independent auditing is considered as an important monitoring mechanism for improving the quality and reliability of financial statements in businesses with high ownership concentration (Darmadi, 2016). However, appointing an independent auditor of high quality and experience in the sector in order to improve the quality of financial reporting and to protect the benefits of the shareholders may lead to a decrease in the controlling power of majority shareholders. This may lead to the majority shareholders to prefer inexperienced auditors in the sector and auditing firms other than the major four.

Moreover, signaling theory assumes that information asymmetry problem will emerge when one of the two parties (manager-shareholder, majority shareholder-minority shareholder) has more information on the firm (Connelly et al., 2011). Some firms with information asymmetry problem are misevaluated by capital markets leading to the provision of some incentives including signalingin order to eliminate this negative perception regarding the managers or majority shareholders. Hence, Big Four audit firms may be preferred in order to earn the trust in corporate governance mechanism and financial reporting of both minority shareholders and potential investors due to the representation conflicts resulting from information asymmetry in businesses with high ownership concentration.

Accordingly, it can be stated that majority shareholders have a significant impact on auditor selection in businesses with high ownership concentration. Studies on this subject have been summarized below:

Fan and Wong (2005) concluded in their studies utilizing the data of 8 Eastern Asia firms that the ratio of preferring one of the Big five audit firms is higher in businesses with high ownership concentration and representation problems. Similar results have also been obtained by (Makani et al., 2012; Darmadi, 2016; Leung and Cheng, 2014; Farooq and Tabine, 2015; Dwekat et al., 2018; Alzeaideen and Al-Rawash, 2018; Moctezuma and Benau, 2018). While some other studies in literature (Copley and Douthett, 2002; El-Ghoul et al., 2007; Bagherpour, 2006; Lin and Liu, 2009; Francis et al., 2009; Xu et al., 2019) determined negative and statistically significant relations between ownership concentration and auditor selection.

Ownership concentration was evaluated in the present study from the perspective of signaling theory and the following hypothesis was developed based on the consideration that there may be an issue of information asymmetry between majority and minority shareholders in developing countries such as Turkey which may have an impact on auditor selection:

H2: There is a positive relationship between ownership concentration and auditor selection.

Auditing Committee and Auditor Selection

Independent audit inspection that is the primary duty of executive boards is under the responsibility of auditing committees. In this regard, auditing committee is an administrative commission authorized to inspect the financial reporting procedure of the firm including the integrity of financial statements, effectiveness of internal controls, independent auditor selection and the monitoring of internal and external auditors (Soliman and Elselam, 2012). The need for an auditing committee has increased in order to effectively monitor the internal control and financial reporting processes of the firms as well as to ensure quality of independent audits especially following the accounting scandals that took place in recent years. It has been indicated through corporate governance principles and legal regulations that the firms should have such a committee and related regulations have been made in order to meet this demand (Sevim and Eliuz, 2007). The Blue Ribbon Committee was the first in 1999 to state the necessity of increasing the effectiveness of auditing committee and the inclusion of at least 3 independent members in the committee followed again in 1999 with the suggestion of similar regulations by the United States of America Securities and Exchange Commission (SEC) for firms traded in the stock exchange. Afterwards, revisions were made with regard to the effectiveness of auditing committees with the SOX law in USA that went into effect in 2002. While the auditing committee application was started in 2003 for firms in Turkey subject to the Capital Markets Law (CML) and it became obligatory for firms traded in the stock exchange to establish auditing committees with at least 2 members selected from among their executive board members.

The auditing committee carries out important duties with the aforementioned regulations such as reducing the audit risk, decreasing illegal actions, preventing faults and frauds as well as the implementation of corporate governance principles (Soliman and Elselam, 2012). In addition, it also has to manage the independent auditing process in an effective manner due to its obligation to make suggestions to the executive board regarding the selection of the independent auditor (Terzi et al., 2014). The size of the auditing committee is one of the important factors with regard to the effectiveness and efficiency of the auditing committee. There are to contradictory opinions in literature on the size of the auditing committee. One of these asserts that the small number of members in auditing committees will lead to the preference of auditing firms other than the Big Four audit firms due to the inability to take effective and fast decisions; while the other puts forth that one of the Big Four audit firms will be more effective in resolving the probable issues that may be faced in auditing committees with a large number of members and hence one of these big four audit firms may be preferred (Mohamad Nor et al., 2010). The number of empirical studies on the subject is limited. Some of these have been summarized below:

Mayoral and Segura (2008) carried out a study on Spanish firms in which a positive and statistically significant correlation was obtained between the size of the auditing committee and auditor selection. Similar results have been obtained by Nasrudin et al. (2017) as a result of studies on firms traded in the Malaysia Stock Exchange as well as the study by Asiriuwa et al. (2018) on firms traded in the Nigeria Stock Exchange. Moreover, Zengin Karaibrahimoğlu (2013) carried out a study on firms traded in Borsa Istanbul as a result of which a positive but statistically insignificant correlation was observed between the number of members in the auditing committee and auditor selection.

The following hypothesis was developed in the present study based on the opinion that the size of the auditing committee will improve the quality of the financial reporting process and auditing activities which will in turn have an impact on auditor selection:

H3: There is a positive correlation between the size of the auditing committee and auditor selection.

Firm Size and Auditor Selection

Firm size is one of the most important factors with an influence on auditor selection. Structural differences may be experienced in large firms leading to administrative issues related with control and coordination (Bagherpour, 2006). Moreover, the agency costs resulting from conflicts of interest may increase due to the increase in information asymmetry between managers and shareholders in large firms. These in turn may lead to large firms demanding specialist auditors with higher quality.

Firms with large total assets may prefer large audit firms because they can also provide additional services to their customers such as tax and management consulting (Hsu et al., 2015). In addition, large firms may also prefer to work with big audit firms due to the high number of commercial transactions, their reputation in the market, the complexity of the auditing process and the high risks involved in auditing (Tuan, 2015). There are many studies which examine the impact of firm size on auditor selection. Some of these have been summarized below:

Citron and Manalis (2001) carried out a study on Greek firms as a result of which a positive and statistically significant correlation was observed between firm size and auditor selection. Similar results have also been obtained by (Adeyemi and Fagbemi; 2010; Niskanen et al., 2011; Karim et al., 2012; Nazri et al., 2012; Terzi et al., 2014; Matonti et al., 2016; Aslan ve Aslanertik, 2017).

The following hypothesis was developed in the present study based on the opinion that firms with a complex structure and high total assets will prefer one of the big four audit firms:

H4: There is a positive correlation between firm size and auditor selection.

Leverage and Auditor Selection

Firm members (managers and shareholders) may be faced with issues resulting from information asymmetry and uncertainty when creditors lend money to a firm. Moreover, managers may shift to risky investments with a lower possibility of repayment after the financing decision is accepted. In this regard, an auditing service with higher quality may be demanded in order to reduce these issues experienced between the creditors and the firm members. In addition, the demand for high quality and reliable auditors may increase in cases when legal protection is insufficient for creditors (Broye and Weill, 2008).

Similarly, firms with greater external financing needs may prefer one of the Big Four audit firms which they believe provide a higher quality service in order to earn the trust of creditors and to reduce capital costs. In this regard, there are many studies in literature which examine the relationship between leverage and auditor selection. Some of these studies have been summarized below:

Chow (1982) carried out a study using data from 165 firms listed in the New York Stock Exchange as a result of which it was concluded that there is a positive and statistically significant correlation between leverage and auditor selection. Similar results have also been obtained by (Broye and Weill, 2008; Knechel et al., 2008; Hope et al., 2008; Mahdavi et al., 2011). Nevertheless, Zureigat (2011) carried out a study in which a negative and statistically significant correlation was observed between leverage and auditor selection.

The following hypothesis was developed in the present study based on the opinion that firms with high leverage will prefer the big four audit firms in order to earn the trust of creditors:

H5: There is a positive correlation between leverage and auditor selection.

Return on Assets (ROA) and Auditor Selection

It is observed that contradictory results have been obtained in studies examining the relationship between ROA and auditor selection. El Ghoul et al. (2007) carried out a study utilizing the 1996-1999 data from 13 different Western European countries as a result of which a negative and statistically significant correlation was observed between ROA and auditor selection. Similar results have also been obtained by Kuo et al. (2014) during their study on 191 Chinese firms. Moreover; İsmail et al. (2008) determined a positive and statistically significant correlation between ROA and auditor selection as a result of their study on firms traded in the Malaysia Stock Exchange. Similarly, Darmadi (2016) also put forth a positive and statistically significant correlation between customer firm ROA and auditor selection as a result of a study on Indonesian firms. Whereas statistically significant correlations could not be observed between ROA and auditor selection

International Journal of Contemporary Economics and Administrative Sciences
ISSN: 1925 – 4423
Volume: X, Issue: 2, Year: 2020, pp. 432-450

in various other studies on the subject (Citron and Manalis, 2001; Husnin and Nawawi, 2016; Yang et al., 2016).

The following hypothesis was developed in the present study based on the opinion that the probability of preferring one of the big four audit firms is higher for firms with higher ROA:

H6: There is a positive correlation between ROA and auditor selection.

3. Methodology

Sample Selection

The 2015-2018 data of non-financial firms from different sectors traded in Borsa Istanbul have been used in the study. Firms in the finance sector were excluded due to the difference in their ownership structure as well as the different characteristics of their performance indicators. Data for all variables used in the study were obtained from the official website of the Public Disclosure Platform (http://www.kap.gov.tr). In this regard, Table 1 presents the sectoral distribution of the firms for which 583 firm-year observations were used in the present study.

Table 1. Sectoral distribution of the firms

Sectors	2015	2016	2017	2018	Total
Agriculture, Forestry and Fishing	2	1	2	2	**7**
Mining	1	1	1	1	**4**
Manufacturing Industry	103	103	103	103	**412**
Electricity, Gas and Water	-	-	3	3	**6**
Construction and Public Works	4	4	4	3	**15**
Total and Retail Trade, Hotel and Restaurants	15	14	15	15	**59**
Transportation, Communication and Storage	5	5	5	5	**20**
Technology	13	13	13	13	**52**
Administrative and Support Service Activities	2	2	2	2	**8**
Total	**145**	**143**	**148**	**147**	**583**

Source: Authors' calculations

Study Model

Logistics regression analysis was used for testing the hypotheses developed in this study for examining the impact of the corporate governance and firm characteristics on independent auditor selection and the following model has been developed:

$$AUDITORSELECTION_{it} = \beta_0 + \beta 1INDEPENDENT + \beta 2LRGST_{it} + \beta 3S\text{-}LRGST_{it} + \beta 4T\text{-}LRGST_{it} + \beta 5FREEFLOATRATIO + \beta 6AUDITCOM + \beta 7SIZE + \beta 8LEVERAGE + \beta 9ROA + \beta 10FIRMYEAR + \beta 11SECTOR + \mathcal{E}_{it}$$

Measurement of Variables

All variables and measurement methods included in the study are presented in Table 2.

Table 2. Definition and measurement of variables

Variables	Measurement of Variables	Reference
Dependent Variable:		
AUDITORSELECTION	Dummy variable. Takes on the value of 1 in case the financial statements of the firm are audited by one of the 4 major auditing firms and 0 if not	Chadegani et al., 2011; Olowookere and Inneh, 2016; Nasrudin et al., 2017.
Independent Variable:		
INDEPENDENT	The number of independent members of the Executive Board	Carcello et al., 2002; Mayoral and Segura, 2008; Suwaidan et al., 2013
LRGST	The shares of the largest shareholder / Total Equity capital	Fan and Wong, 2005; Zureigat, 2011; Makni et al., 2012; Dwekat et al., 2018
S-LRGST	The shares of the second-largest shareholders / Total Equity capital	*
T-LRGST	The shares of the third-largest shareholders / Total Equity capital	*
FREEFLOATRATIO	Total Nominal Value of the Shares Open to Public / Total Equity capital	Terzi and Solak, 2014
AUDITCOM	Number of members in the auditing committee	Mayoral and Segura, 2008; Nasrudin et al., 2017
SIZE	Natural logarithm of the total firm assets	Adeyemi and Fagbemi, 2010
LEVERAGE	Total Debts/Total Assets	Broye and Weill, 2008
ROA	Net Profit / Total Assets	İsmail et al., 2008; Darmadi, 2016

International Journal of Contemporary Economics and Administrative Sciences
ISSN: 1925 – 4423
Volume: X, Issue: 2, Year: 2020, pp. 432-450

Control Variables:		
FIRMYEAR	Difference between the current year and the founding year of the firms	Odum and Egbunike, 2019
SECTOR	Dummy variable. Takes on the value of 1 if the firm is operating in the manufacturing sector and 0 if operating in other sectors	Kuo et al., 2014; Matonti et al., 2016

Note: * observed in previous studies on the subject that the aforementioned variables have not been used.

4. Empirical Analysis and Findings

Descriptive Statistics

Table 3 presents descriptive statistical information on the variables used in the study.

Table 3. Descriptive statistics

	Observation	Minimum	Maximum	Mean	Std. Deviation
AUDITORSELECTION	583	,00	1,00	,5695	,49558
INDEPENDENT	583	1,00	5,00	2,1870	,50192
LRGST	583	,05	,99	,4926	,22967
S-LRGST	583	,00	,45	,1099	,12009
T-LRGST	583	,00	,23	,0300	,05173
FREEFLOATRATIO	583	,00	,95	,3302	,18756
AUDITCOM	583	1,00	3,00	2,0240	,16405
SIZE	583	4,68	10,14	8,2311	,86757
LEVERAGE	583	,01	,98	,4863	,21999
ROA	583	,00	,51	,0791	,07212
FIRMYEAR	583	1,00	82,00	35,4906	16,53652
SECTOR	583	,00	1,00	,7050	,45645

As can be seen in Table 3, about 57 % of the firms included in the analysis are audited by one of the big four audit firms. It was observed that the mean ownership ratios of LRGST, S-LRGST, T-LRGST, FREEFLOATRATIO used as ownership concentration indicators are 49 %, 11 %, 3 % and 33 % respectively. The number of auditing committee members of the firms and the number of independent members in the executive board were about 2 on average. Moreover, it can also be observed that on average 70 % of the selected firms are in the manufacturing sector and that the mean LEVERAGE and ROA 49 % and 8 % respectively and that they have an average history of about 35 years.

Analysis Results

In this section, correlation analysis was carried out in order to determine whether there is a correlation problem between the independent variables in the model. It was observed based on the correlation analysis results in Table 4 since the correlation coefficient between the independent variables in the model is below 0.8.

International Journal of Contemporary Economics and Administrative Sciences
ISSN: 1925 – 4423
Volume: X, Issue: 2, Year: 2020, pp. 432-450

Table4. Correlation table

VARIABLES	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
2.INDEPENDENT	1										
3.LRGST	,036	1									
4.S-LRGST	-,056	-,425**	1								
5.T-LRGST	-,012	-,469**	,301**	1							
6.FREEFLOATRATIO	,006	-,617**	-,235**	-,121**	1						
7.AUDITCOM	,279**	-,004	-,039	,006	,014	1					
8.SIZE	-,210**	,003	,006	,011	-,030	-,142**	1				
9.LEVERAGE	,183**	,036	,015	-,098*	,023	,058	,106*	1			
10.ROA	-,056	,103*	-,027	-,049	-,067	-,044	-,078	-,398**	1		
11.FIRMYEAR	-,117**	,036	-,013	-,082*	,004	,002	,116**	-,057	,027	1	
12.SECTOR	-,021	,021	-,010	,054	-,085*	-,066	,090*	-,054	,027	,019	1

Note: ** and * respectively indicate statistical significance at a level of 1 % and 5 %

Table 5 presents the results for the logistics regression analysis carried out for testing the developed hypotheses.

Table5. Logistics regression analysis results

VARIABLES	Expected Sign	β	S.E.	Wald	Sig.	Exp (B)
CONSTANT		-4,035	2,222	3,299	,069	,018
INDEPENDENT	+	1,097	,291	14,235	,000***	2,997
LRGST	+	5,117	1,290	15,731	,000***	166,770
S-LRGST	+	2,076	1,463	2,015	,156	7,976
T-LRGST	+	,837	2,932	,082	,775	2,310
FREEFLOATRATIO	+	,045	1,360	,001	,974	1,046
AUDITCOM	+	-,696	,672	1,074	,300	,498
SIZE	+	-,137	,129	1,142	,285	,872
LEVERAGE	+	1,751	,499	12,327	,000***	5,762
ROA	+	2,659	1,517	3,073	,080*	14,286
FIRMYEAR	+	,015	,006	5,887	,015**	1,015
SECTOR	+/-	,282	,213	1,754	,185	1,326
Cox&Snell R2				,248		
Nagelkerke R2				,333		
Number of Observations				583		

Note: *, ** and *** respectively indicate significance at a level of 10 %, 5 % and 1 %

As can be seen from the Table 5, Nagelkerke R2 value was determined as ,333 at a Cox&Snell R2 value of ,248. It is observed when the analysis results are examined that there is a positive and statistically significant relationship between auditor selection and the number of independent members in the executive board. In other words, an increase by 1 % in the number of independent members in the executive board increases the probability of choosing one of the big four audit firms. These findings can be interpreted such that higher number of independent members in the executive board increases the probability of working with one of the big four audit firms in order to protect shareholder benefits better. The acquired results support our H1 hypothesis and are also in accordance with the related literature (Abdullah et al.,2008; Soliman and Elsalam, 2012).

A positive and statistically significant correlation was determined only between the ownership ratio of the largest shareholder (LRGST) and auditor selection from among the variables (LRGST, S-LRGST, T-LRGST and FREEFLOATRATIO) used as indicators of ownership concentration. This result supporting our H2 hypothesis and which is in accordance with the literature (Zengin Kaaibrahimoğlu, 2013; Leung and Cheng, 2014; Dwekat et al., 2018) can be interpreted as a greater probability of selecting one of the Big Four auditing firms in order to signal the accuracy and reliability of the information disclosed to the investors in financial reports in firms with high ownership concentration. In addition, it can also be stated that firms with higher ownership concentration have a greater probability of selecting one of the Big Four auditing firms in order to reduce the representation conflicts among majority and minority shareholders.

While a positive relationship was observed at a statistical significance level of 1 % between firm leverage and auditor selection used as firm characteristics indicators; a positive relationship at a statistical significance level of 10 % was observed between ROA and auditor selection. This is an indication that an increase by 1 % in the leverage and ROA and levels of the firms included in the analysis increases the probability of selecting one of the big four audit firms. It can be stated based on these results supporting our H5 and H6 hypotheses that firms with high leverage may prefer one of the Big Four auditing firms in order to minimize the agency problems that may develop between the upper management and creditors due to resource use. It is also possible on the part of firms with high ROA that they will prefer one of the big four auditing firms due to their brand value and the opinion that they will provide a better auditing service.

Finally, it was observed when the relationships between the control variables included in the study and auditor selection were observed that there is a positive and statistically significant relationship between firm years and auditor selection. This relationship between firm years and auditor selection can be interpreted such that the probability of selecting one of the big four audit firms is greater for firms with a long-standing background. On the other hand, a positive but statistically insignificant relationship was observed between the independent variable of SECTOR and auditor selection.

5. Conclusions

The advancements in economy and social life due to the impact of globalization lead firms to change and expand their fields of services. These changes increase the need for the accuracy and reliability of the financial tables prepared by these firms thus emphasizing the importance of independent auditing. The effectiveness of independent audition on the financial reporting process is closely related with auditing quality. For this purpose, auditor selection is of significant importance for firms that wish to receive a high-quality independent auditing service.

The objective of the present study was to examine the relationships between the firm characteristics and corporate governance applications of firms traded in Borsa Istanbul (BIST) and auditor selection. For this purpose, 583 firm year observations were used for the years 2015-2018. Big four audit firms (PricewaterhouseCoopers, Ernst &Young, Deloitte & Touche and KPMG) were taken as basis in the study as an indicator of auditor selection in accordance with the related literature. While independent members, ownership concentration

(LRGST, S-LRGST, T-LRGST, FREEFLOATRATIO), number of auditing committee members (AUDITCOM) were used as indicators of corporate governance; firm size, ROA and leverage ratios were used as indicators of firm characteristic. In addition, firm year and sector were used as control variables in the study.

As a result of the analysis, a positive and statistically significant relationship at a level of 1 % was observed between independent members from among corporate governance indicators and auditor selection. Moreover, a positive and statistically significant relationship was observed only between auditor selection and LRGST from among the variables used as indicators of ownership concentration which are the shares of the largest shareholder (LRGST), the shares of the second-largest shareholders (S-LRGST), the shares of the third largest shareholders (T-LRGST) and free float ratio (FREEFLOATRATIO). These results were interpreted as an indication of the increase of the probability of selecting one of the big four audit firms in case of greater number of members in the executive board and greater shares of the largest shareholder in total capital. Positive and statistically significant relationships were determined between leverage and ROA from among firm characteristic indicators and auditor selection. In addition, a positive and statistically significant relationship was observed between the firm year used as a control variable and auditor selection.

Even though many studies have been carried out on the subject in foreign literature, the number of studies carried out for determining the relationship between the corporate governance and firm characteristic of firms and auditor selection in a single model is limited in Turkey. The present study carried out using current data and with a wide sample selection also has various limitations despite its significance. Big four audit firms have been used as indicators of auditor selection in the study. The variables used as auditor selection indicators in previous studies (auditor opinion, auditor working time, auditor prices) have not been included in the study due to lack of sufficient data. Whereas the variables put forth in the third section of the study have been used as corporate governance indicators and firm characteristic indicators. However, it is observed in literature that different corporate governance (family ownership, managerial ownership, executive board size) and firm characteristic (business complexity) indicators have been used. In this regard, it is considered that the use of different criteria for evaluating auditor selection will make significant contributions to the literature. These factors may be taken into consideration for future studies.

REFERENCES

Akarli, A., Clemens, P., Magdalena, Lund-Jensen, Kasper, M. and Andrew, M. (2012). Recent Financial Loosening Could Provide Upside to Growth. GoldmanSachs CEEMEA Economics Analyst, No 12/03

Abdullah W.Z.W., Ismail, S. and Jamaluddin, N. (2008), “The impact of board composition, ownership and CEO duality on audit quality: The Malaysian evidence”, Malaysian Accounting Review, Vol. 7 No. 2, pp. 17-28.

Abidin, S., Ishaya, I.V. and M-Nor, M.N. (2016), “The association between corporate governance and auditor switching decision”, International Journal of Economics and Financial Issues, Vol. S7 No. 6, pp.77-80.

Adeyemi, S.B. and Fagbemi, T.O. (2010), “Audit quality, corporate governance and firm characteristics in Nigeria”, International Journal of Business and Management, Vol. 5 No. 5, pp.169-179.

Alzeaideen, K.A. and AL-Rawash, S.Z. (2018), “The effect of ownership structure and corporate debt on audit quality: Evidence from Jordan”, International Journal of Economics and Financial Issues, Econjournals, Vol. 8 No. 3, pp. 51-58.

Asiriuwa, O., Aronmwan, E., Uwuigbe, U. and Aronmwan, E. (2018), “Audit committee attributes and audit quality: A benchmark analysis”, Business: Theory and Practice, Vol. 19, pp. 37–48.

Aslan, E. and Aslanertik, B.E. (2017), “The determinants of auditor selection in terms of firm and Ipo characteristics: Evidence from Bıst”. Journal of Accounting and Management, Vol. 1 No. 7, pp. 64-74.

Bagherpour, M.A., Monroe, G. and Shailer, G. (2006), “Investigating the factors associated with auditor switches in Iran”, University of Technology Sydnet (UTS) Summer Accounting Symposium, 06/02/2006, Sydney, available at: https://profdoc.um.ac.ir/paper-abstract-1018272.html.

Beasley, M.S. and Petroni, K.R. (2001), “Board independence and audit-firm type”, Auditing: A Journal of Practice and Theory, Vol. 20 No. 1, pp. 97-114.

Bekçi, İ. and Gör, Y. (2015), “Kurumsal yönetim uygulamalarının denetim kalitesine etkisi üzerine bir araştırma”, Çankırı Karatekin Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, Vol. 7 No. 1, pp. 165-194.

Broye, G. and Weill, L. (2008), “Does leverage influence auditor choice? A cross-country analysis”, Applied Financial Economics, Vol. 18 No. 9, pp. 715-731.

Carcello, J.V., Hermanson, D.R., Neal, T.L. and Riley, R.A. (2002), “Board characteristics and audit fees”, Contemporary Accounting Research, Vol.19 No. 3, pp. 365-384.

Chadegani, A.A., Mohamed, Z.M. and Jari, A. (2011), “the determinant factors of auditor switch among companies listed on Tehran stock exchange” International Research Journal of Finance and Economics, Vol. 80, pp. 158-168.

Chow, C. W. (1982), “The demand for external auditing: size, debt and ownership influences”. The Accounting Review. Vol. 57 No. 2, pp. 272-291.

Citron, D. B. and Manalis, G. (2001), "The international firms as new entrants to the statutory audit market: an empirical analysis of auditor selection in Greece, 1993 to 1997", European Accounting Review, Vol. 10 No. 3, pp. 439-459.

Connelly, B.L. and Certo, S.T., Ireland, R.D. and Reutzel, C.R. (2011), "Signaling Theory: A review and assessment". Journal of Management, Vol. 37 No. 1, pp. 39-67.

Copley, P. and Douthett, E. (2002), "The association between auditor choice, ownership retained, and earnings disclosure by firms making initial public offerings", Contemporary Accounting Research, Vol. 19 No. 1 pp. 49-75.

Darmadi, S. (2016), "Ownership concentration, family control, and auditor choice evidence from an emerging market", Asian Review of Accounting, Vol. 24 No. 1, pp. 19-42.

Dwekat, A., Mardawi, Z. and Abdeljawad, I. (2018), "Corporate governance and auditor quality choice: evidence from Palestinian corporations", International Journal of Economics and Financial Issues. Vol. 8 No. 2, pp. 47-53.

El Ghoul, S., Guedhami, O., Lennox, C. and Pittman, J.A. (2007), "Ownership structure, agency problems, and auditor choice: evidence from Western European firms", working paper, University of Alberta, Edmonton, August.

Fama, E.F. and Jensen, M.C. (1983), "Separation of ownership and control", Journal of Law and Economics, Vol. 26 No. 2, pp. 301-325.

Fan, J.P.H. and Wong, T.J. (2005), "Do external auditors perform a corporate governance role in emerging markets? evidence from East Asia", Journal of Accounting Research, Vol. 43 No. 1, pp. 35-72.

Farooq, O. and Tabine, S. (2015), "Agency problems and the choice of auditors: Evidence from the Mena region", Review of Middle East Economics and Finance, Vol. 11 No. 1, pp. 79–97.

Francis, J.R., Richard, C. and Vanstraelen, A. (2009), "Assessing France's joint audit requirement: are two heads better than one?", Auditing: A Journal of Practice and Theory, Vol. 28 No. 2, pp. 35-63.

Hope, O-K., Kang, T., Thomas, W. and Yoo, Y.K. (2008), "Culture and auditor choice: A test of the secrecy hypothesis", Journal of Accounting and Public Policy, Vol. 27 No. 5 pp. 357–373.

Hsu, W., Troy, C. and Huang, Y. (2015), "The determinants of auditor choice and audit pricing among property-liability insurers", Journal of Accounting Public Policy. Vol. 34 No. 2015 pp. 95-124.

Husnin, A. I., Nawawi, A. and Salin, A. S. A. P. (2016), "Corporate governance and auditor quality: Malaysian evidence", Asian Review of Accounting, Vol. 24 No. 2, pp. 202-230.

Jensen, M.C. and Meckling, W.H. (1976), "Theory of firm: managerial behavior, agency costs and ownership structure", Journal of Financial Economics, Vol. 3 No. 4, pp. 305-360.

Karim, A.K.M.W., Zijl, T.V. and Mollah, S. (2012), "Impact of board ownership, ceo-chair duality and foreign equity participation on auditor quality choice of ipo companies evidence from an emerging market", International Journal of Accounting and Information Management, Vol. 21 No. 2, pp. 148-169.

Knechel, W.R., Niemi, L. and Sundgren, S. (2008), "Determinants of auditor choice: evidence from a small client market", International Journal of Auditing, Vol. 12 No. 1, pp. 65-88.

Kuo, L-C., Lin, C-J. and Lin, H-L. (2014), "Auditor switch decisions under forced auditor change: evidence from China", Asian Review of Accounting, Vol. 24 No. 1, pp. 69-89.

Leung, N.W. and Cheng, M.A. (2014), "Corporate governance mechanisms and auditor choice: evidence from China", International Journal of Business and Management, Vol. 9 No. 9, pp. 41-56.

Lin, Z. and Liu, M. (2009), "The impact of corporate governance on auditor choice: evidence from China", Journal of International Accounting, Auditing and Taxation, Vol. 18 No. 1, pp. 44-59.

Mahdavi, G., Maharlouie, M.M., Ebrahimi, F. and Sarikhani, M. (2011), "The impact of corporate governance on auditor choice", International Research Journal of Finance and Economics, Vol. 68, pp. 129-139.

Makni, I., Kolsi, M.C. and Affes, H. (2012), "the impact of corporate governance mechanisms on audit quality: Evidence from Tunisia", The IUP Journal of Corporate Governance, Vol. XI No. 3, pp. 1-22.

Matonti, G., Tucker, J. and Tommasetti, A. (2016), "Auditor choice in Italian non-listed firms", Managerial Auditing Journal, Vol. 31 No. 4/5, pp. 458-491.

Mayoral, J.M. and Segura, A.S. (2008), "Corporate governance, agency conflicts and auditor choice". Spanish Journal of Finance and Accounting, Vol. 37 No. 137 pp. 113-135.

Moctezuma, J.A.T. and Benau, M.A.G. (2018), "The change of the auditor towards the big four auditing firms in Mexico", Advances in Social Sciences Research Journal, Vol. 5 No. 12 pp. 409-434.

Mohamad-Nor, M. N., Shafie, R. and Wan-Hussin, W. N. (2010), "Corporate governance and audit report lag in Malaysia", Asian Academy of Management Journal of Accounting and Finance, Vol. 6 No. 2, pp. 57-84.

Nasrudin, W.A.W., Mohamed, N. and Shafie N.A. (2017), "Corporate governance & auditor choice in Malaysia, Shs Web of Conferences Journal, Vol. 36, pp. 1-12.

Nazri, S.N.F., Smith, M. and Ismail, Z. (2012), "The impact of ethnicity on auditor choice: Malaysian evidence", Asian Review of Accounting, Vol. 20 No. 3, pp. 198-221.

Niskanen, M., Karjalainen, J. and Niskanen, J. (2011), "Demand for audit quality in private firms: evidence on ownership effects", International Journal of Auditing, Vol. 15 No. 1, pp. 43-65.

Odum, A.N. and Egbunike, F.C. (2019), "External auditor selection choice: a multinomial logistic regression approach", Indonesian Journal of Contemporary Accounting Research, Vol. 1 No. 1, pp. 9-20.

Official Gazette (1989), "Public practice accounting, Certified public accountants and Sworn-in Certified Public Accountants Law", available at: https://www.resmigazete.gov.tr/arsiv/20194.pdf/ (accessed 20 March 2020).

Official Gazette (2013). “A notification that amendments about the audit standards in the capital markets (Seri: X, No:22)”, available at: https://www.resmigazete.gov.tr/eskiler/2013/06/20130628-17.htm/ (accessed 20 March 2020).

Olowookere, J.K. and Inneh, G.E. (2016), “Determinants of external auditors’ choice in Nigerian quoted manufacturing companies”, Kuwait Chapter of Arabian Journal of Business and Management Review, Vol. 5 No. 9, pp. 10-22.

Özcan, A. (2018). Analyzing Determinants of Auditor Choice: Evidence from Borsa İstanbul. Muhasebe ve Finansman Dergisi, 79, 165-182.

Sevim, Ş and Eliuz, A. (2007), “Denetim komitelerinin iç denetimin etkinliği üzerindeki roller ve İMKB’de bir araştırma”, Muhasebe ve Finansman Dergisi, Vol. 36, pp. 60-70.

Shleifer, A. and Vishny, R.W. (1997), “A survey of corporate governance”, The Journal of Finance, Vol. 52 No. 2, pp. 737-783.

Soliman, M.M and Elsalam, M.A. (2012), “Corporate governance practices and audit quality: an empirical study of the listed companies in Egypt”, World Academy of Science, Engineering and Technology, Vol. 71, pp. 1292-1297.

Suwaidan, M., Abed, S. and Al-Khoury, A. (2013), “Corporate governance and non-Jordanian share ownership: the case of Amman stock exchange” International. Journal of Business and Management, Vol. 8 No. 20, pp. 14-24.

Tanrıöven, C. and Aksoy E. E. (2010), “Imkb’de işlem gören şirketlerde ortaklık yoğunlaşmasının firma performansı üzerine etkileri”, Muhasebe ve Finansman Dergisi, Vol. 46, pp. 216-231.

Terzi, S., Şen, İ. and Solak, B. (2014), “Kurumsal yönetim uygulamalarının denetim kalitesine etkisi: Borsa Istanbul’da ampirik bir araştırma”, Uluslararası Yönetim İktisat ve İşletme Dergisi. Vol. 10 No. 23, pp. 191-206.

Tuan, K. (2015), “Bağımsız denetçi seçiminin belirleyicileri: Borsa Istanbul’da bir araştırma”, Mali Çözüm Dergisi, Vol. 25, pp. 33-47.

Uzay, Ş. and S. B. Bayat (2016), “6102 sayılı türk ticaret kanununun bağımsız denetim alanında getirdiği yenilikler ve tartışmalı konular”, Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, Vol. 21 No. 5, pp. 1503-1513.

Xu, J., Zhang, Y. and Xie, Y. (2019), “Controlling shareholder’s share pledging and firm’s auditor choice”, Journal Emerging Markets Finance and Trade, Vol. 56 No. 4, pp. 750-770.

Yang, Y.J., Kang, J., Lin, R.C. and Ronen, J. (2016), “Auditor selection within a business group: evidence from Taiwan”, Review of Quantitative Finance and Accounting, 46(2), 195-215.

Zengin Karaibrahimoğlu, Y. (2013), “Is corporate governance a determinant of auditor choice? Evidence from Turkey”, Ege Academic Review, Vol. 13 No. 2, pp. 273-284.

Zureigat, Q. (2011), “The effect of ownership structure on audit quality: evidence from Jordan”, International Journal of Business and Social Science, Vol. 2 No. 10, pp. 38-46.