

Board Diversity and Accounting Conservatism: Evidence from Jordan

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Abstract

The main aim of this research is to investigate whether board diversity affect the accounting conservatism. This study depends on a panel data set drawn from 68 industrial firms listed on Amman Stock Exchange (ASE) for the period from 2013 to 2016. Four demographic characteristics of directors have been investigated, namely: gender diversity, education level, average age and nationality diversity. Accounting conservatism was measured by accrual-based conservatism. The results indicate that gender diversity, education level and nationality diversity are significantly positively correlated with accounting conservatism. However, the findings fail to reveal any significant effect for directors' age on accounting conservatism. The findings of this study assert that it is necessary to take board diversity (directors' demographic characteristics) into account when choosing board of directors members because demographic characteristics diversity influences directors' behavior to deal with different issues that are related to accounting principles.

Keywords: board diversity, female, education level, age, nationality diversity, accounting conservatism, Jordan

1. Introduction

In the last two decades, wave of crises and scandals in major firms such as Enron Inc. in 2001 and World Com Inc. in 2002 have shaken investor confidence in financial reports. Therefore, academics, regulators and practitioners of accounting profession have sought to develop more sophisticated accounting practices to enhance the credibility of financial reporting. In this strand recent accounting research encouraged the use of conservative accounting practices. Conservatism is built on the adage for Bliss (1924) "anticipate no profit, but anticipate all losses". This proverb indicates that the conservatism means that losses will be determined before happened, but the recognition of profits will be deferred until gains are realized.

Numerous previous research have emphasized that conservatism mitigates agency conflicts as it reduces overpayment of reward to managers as well as limits managers' opportunistic behavior (Yunos et al., 2012; Boussaid et al., 2015; Garc á-S áchez et al., 2017) and minimizes information asymmetry among managers and outside shareholders (Ho et al., 2015). Moreover, practices of conservatism prevents managers from choosing negative net present value (NPV) projects since it immediately recognizes expected losses (Bushman et al., 2011; Ho et al., 2015). Ultimately, the relationship between conservatism and the agency aims to enhance the usefulness of financial statements and enhance company value.

Corporate governance has a strong relationship with accounting conservatism, previous studies (e.g., Basu, 1997; Watts, 2003; Ahmed & Duellman, 2007) assert that good governance enhances the accounting quality which conservatism is one of it's the most important attributes. Garc á-S áchez et al. (2017) point out that the effective board of directors reduces the agency conflicts and introduce transparent financial reporting. Moreover, existing research indicate that conservatism benefits boards of directors, shareholders, debt-holders, shareholders as well as other parties (Boussaid et al., 2015). For example, accounting conservatism assist boards of directors to reveal negative net present value projects early and increase future-proof investment opportunity. Moreover, conservatism helps the board of directors in controlling agency conflicts arising from asymmetric information between shareholders and managers. Boards of directors build their decisions on verifiable information to monitor manager activities and are therefore expected to insist on higher reporting quality.

Although the expected vital role of the board of directors in mitigate agency conflicts and in producing transparent financial reporting, the relationship between boards of directors and conservatism has not yet been extensively studied and is still rarely investigated. Previous studies in the area of conservatism accounting addressed the board of directors' structure from the corporate governance point of view by focusing on directors'

independence, board size, board meetings, leadership structure, and ownership, but there is a little attention to the effect of directors' demographic characteristics such as (age, gender, education level and nationality).

Jordan as a developing country provides an exciting context in which to study the effect of directors' demographic diversity on accounting conservatism due to the presence of some reliably unusual cultural factors. For instance, Jordan is known as a country based on tribal affiliations and the business community suffers from a common phenomenon known as favouritism or "Al-Wasta" (Ali et al., 2013; Almasarwah, 2015). These phenomena put pressure on shareholders and decision makers to select board members and managers based on connections such as family, tribe, kinship, and friendship regardless of demographic characteristics such as qualifications, experience, education level, and fitness to do the job (Omran et al., 2008), which may negatively affect the effectiveness of the board of directors and on transparent financial reporting.

Additionally, Jordan has a unique ownership structure that is characterized mainly by a high concentration of family ownership and weak legal protection of minority shareholders (Haddad et al., 2015). Moreover, Jordanian firms are characterized by the dominance of family members on the board of directors and differ from other Middle East countries by the concentration of ownership in the hands of family members (Haddad et al., 2015). These attributes may affect in choosing of accounting practices as well as influence earnings quality. Moreover, as a result of dominance of family members on the board of directors in Jordanian listed firms (Makhlouf et al., 2017), the type II of agency problem arises from a conflict of interests between the majority (Family members) shareholders and the minority shareholders, rather than a conflict between management and outside owners in dispersed ownership settings, which in turn affects the effectiveness of the board of directors. Yunus et al. (2012) argue that conservatism has a vital role in mitigating agency conflicts between majority shareholders and minority shareholders.

This study differs from previous studies by focusing on the effect of directors' demographic diversity (Age, education level, gender diversity and nationality) on accounting conservatism, while prior studies addressed board of directors' structure from the corporate governance point of view by focusing on directors' independence, board size, board meetings, leadership structure, and ownership. Moreover, as mentioned earlier previous studies have indicated that conservative accounting mitigates the agency conflicts, but until now, the evidence that it is applicable in Jordanian companies is not available, as companies are closely held by the controlling shareholders. Thus, this study extends the existing literature on board attributes and accounting conservatism by using a new data set from Jordan environment that has various characteristics that can help to shed further light on other institutional aspects in developing markets and middle-east countries. The current study seeks to fill a knowledge gap by analyzing the relationship between board diversity and accounting conservatism and the findings of this research may be valid for firms in other developing countries that have similar characteristics to those in the Jordanian environment.

The remainder of this paper is organized as follows: section two presents a summary of the previous related literature, section three discusses the data and methodology used by this study. Section four discusses the empirical findings and section five concludes the paper.

2. Literature Review and Hypotheses Development

In the last few years, directors' demographic characteristics have received more attention, particularly in corporate governance studies. This is because owners, stockholders, and investors are seeking to appoint members who have diverse backgrounds in terms of their expertise and professionalism in order to ensure that the board is able to protect their rights (Yusoff, 2010). In addition, accounting conservatism has received wide interest in the corporate governance studies, due to its importance in mitigating manager's opportunistic behaviors, increasing company's value, and thus protecting the interests of minority shareholders (Watts, 2003).

This section addresses the literature concerning the effect of board of directors on accounting conservatism. Thus, previous studies focusing by examining board independence, board size and leadership structure, this research looks at other characteristics of the board of directors such as directors' demographic characteristics (e.g., gender diversity, education level, average age and nationality diversity), which were not investigated by previous studies thoroughly.

2.1 Gender Diversity and Accounting Conservatism

Gender diversity is considered one of the key mechanisms to improve corporate governance as well as conceived as an active matter in policymaking in numerous countries (Ferrero-Ferrero et al., 2015), prompting some countries have passed legislation establishing a gender quota system by introducing reserved seats for women in board of directors. However, there is a little attention to the role of women in board of directors in Middle East

countries, particularly in Jordan. Related literature about female on the board in Jordan is still limited. For instance, previous studies (e.g., Qasem & Abdullatif, 2014; Ibrahim & Hanefah, 2016) concluded that the Jordanian private sector's suffers from discrimination against female in leadership and accounting-related positions due to the Jordanian society characteristics and Islamic conditions.

Previous studies (e.g., Mohan & Chen, 2004; Huang & Kisgen, 2013) examined whether female managers have an influence on different company decisions, such as financing, investment and acquisitions. They argued that the firms' decisions introduced by women (female managers) are significantly different from those made by men (male managers). Moreover, previous studies (e.g., Carter et al., 2007; Hillman et al., 2008) concluded that female directors have independent thinking and take significantly more risk-averse and less likely to overconfidence than male directors in decision-making. Moreover, Ginesti et al. (2018) argued that the existence of female members enhances transparency of financial reports because women are more efficient in the board's activities and monitoring functions. This argument is consistent with agency theory perspective, which asserts that the existence of female members on the board improves the monitoring mechanisms and aligning managers' interests with shareholders' interests (Ginesti et al., 2018).

However, despite the expected vital role of gender diversity, it is not yet clear to what extent the female members influence on firms accounting decision making, and findings of previous research are still inconclusive and mixed. For example, (e.g., Barua et al., 2010; Peni & Vähämaa, 2010; Francis et al., 2015) pointed out that companies with women CFO have lower absolute discretionary accruals or higher income-decreasing discretionary accruals. Based on a sample of 435 Italian firms for the years 2009 to 2013, Ginesti et al. (2018) found that the presence of female on the board have a positive effect on disclosure process and annual reports' transparency. In contrast, Ge et al. (2011) found that the CFO gender has not affects discretionary accruals. Dyreng et al. (2010) do not find that executive gender influences company tax avoidance.

Regarding the relationship between female directors and accounting conservatism. Using a sample of 13,206 firm years listed in the USA for a period from 1996-2008, Ho et al. (2015) examined the relationship between CEO gender, ethical leadership, and Accounting conservatism. They found that there is a positive and strong relationship between CEO gender and accounting conservatism. They argued that the female CEOs are more ethical and risk averse, tend to report more conservative earnings and they have the ability to recognize bad news in reported earnings in a more timely fashion. Garc á-S áchez et al. (2017) examined the influence of gender diversity on board and financial expertise on audit committee affect accounting conservatism in banking sector in nine different countries from the period 2004-2010 for the sample of 159 banks. They also reveal that female experts have positive impact on accounting conservatism and earnings quality in banks. Moreover, they found that there is a lower differential timeliness of recognizing profits declines versus earnings in banks with higher board female diversity and expert directors in auditing committees. Similarly, based on a sample of 120 French listed firms over the period 2009-2012, Boussaid et al. (2015) found that the there is a positive association between gender diversity and accounting conservatism. Moreover, they pointed out that female directors improve board monitoring. Hence, based on the above discussion, this study hypothesizes that:

H1: There is a positive association between gender diversity and accounting conservatism.

2.2 Education Level and Accounting Conservatism

Education level is considered one of the significant keys in enhancing firm performance (Makhlouf et al., 2017). Previous studies (e.g., Westphal & Milton, 2000; Darmadi, 2013) argued that the education level reflects a person's cognitive capability and skills. For instance, when directors have had a higher (tertiary) education, they get sufficient skills in strategic thinking and decision-making because this level of education gives up access to a creative of ideas. Moreover, board of directors who have a higher education have greater intellectual power, rich of ideas, and have distinctive viewpoints, all of which allows them to deal with different issues effectively (Westphal & Milton, 2000).

Upper echelon theory argues that a high level of education among directors is correlated with open-mindedness, the ability to process data and to deal with continuous changes. Consequently, they have more knowledgeable and are able to deal with information and decision making (Hambrick & Mason, 1984). From resource dependence theory view, the board of directors is conceived as a main resource for the company. Therefore, directors who have high-level qualification such as a PhD or Master's degree will function as a strategic resource because they have a mix of competencies and capabilities that will assist them in performing their tasks.

Regarding the relationship between education level and accounting conservatism, very few studies have examined the relationship between the directors' education level and accounting conservatism. Using a sample of 38 listed on the stock exchange of Indonesia for a period from 2005-2012, Pulungan and Sadat (2014) found

an insignificant relationship between the level of education and accounting conservatism. Yunos (2011) has examined the influence of financial expertise measured by accounting education on accounting conservatism on Malaysian listed companies from 2001 to 2007. The findings indicate that the financial expertise are significantly correlated with accounting conservatism measured by asymmetric timeliness, but is not significant with accrual-based conservatism. Hence, based on the above discussion of upper echelon theory and resource dependence viewpoint, this study hypothesizes that:

H2: There is a positive association between education level and accounting conservatism.

2.3 Average Age and Accounting Conservatism

A director's age is a significant demographic characteristic that is related to the interaction process between board members and thus has a strong effect on decision making through the differences in the backgrounds and experiences of the members (Makhlouf et al., 2015). Age diversity between older and younger members is considered as an asset to the board and as a part of human capital, in view of the fact that the age reflects experience and risk-taking (Darmadi, 2011).

According to upper echelon theory, Hambrick and Mason (1984) argues that the companies with younger directors may experience higher growth than companies that have older directors because older directors are avoid to adopt risky strategies, while younger directors are inclined to adopt risky choices. In this context, agency theory indicates that younger members are more likely to be ready to bear more risk and to undertake significant structural changes to improve the firm's future chances, whereas older members prefer investments that deliver a rapid payback (Antia et al., 2010; Nakano & Nguyen, 2011; Horvath & Spirollari, 2012). Resource dependence theory also argues that young members promote the decision-making process and provide unique perspectives and ideas to a company, which improves board performance and enhances creativity (Van Ness et al., 2010).

To the best of my knowledge, the issue of directors' age and accounting conservatism has not been investigated. Thus, this is the first study to investigate the effect of directors' age on accounting conservatism. Hence, based on the above discussion of agency theory, upper echelon theory and resource dependence viewpoint, this study hypothesizes that:

H3. There is a positive relationship between the directors' age and accounting conservatism.

2.4 Nationality Diversity and Accounting Conservatism

Appointment of foreign directors enhances the quality of the decision-making in the board (Ibrahim & Hanefah, 2016), because the foreign members bring diverse ideas and perspectives, such as language, life experiences, culture, behaviours, and laws of the region, which in turn improves the decision-making approach (Ruigrok et al., 2007; Ibrahim & Hanefah, 2016). Resource dependence theory indicates that foreign members provide extra value to the board and firm through having different skills and experiences. In a similar vein, upper echelon theory argues that the existence of foreign members helps the company in gaining arrival to resources that are important to the firm's success. Pfeffer and Salancik (2003) indicate that the foreign members are able to bring new experiences and diverse knowledge to the firm to deal with foreign problems.

Although the existence of a great number of foreign directors on the boards in emerging markets, very few studies have examined the effect of nationality diversity on accounting conservatism. Previous studies argued that the nationality diversity (foreign directors) affects conservatism which then affects the measurement of the financial information. Schultz Jr and Lopez (2001) found that accountants and managers, coming from countries with higher uncertainty avoidance (such as Germany and France), gave more conservative warranty estimates than their American counterparts with lower uncertainty avoidance. In Malaysia, Yunos (2011) argued that the higher proportion of diversity of Malaysian directors or Chinese directors on the board led to higher asymmetric timeliness, while the higher proportion of diversity on the audit committee that emanating from the board of directors leads to lower asymmetric timeliness. Hence, based on the above discussion of upper echelon theory and resource dependence viewpoint, this study hypothesizes that:

H4. There is a positive relationship between the nationality diversity and accounting conservatism.

3. Methodology

3.1 Sample and Data Collection

The sample of this study consists of all industrial firms listed on Amman Stock Exchange (ASE). The industry sector contains 68 firms divided into 11 sub-sectors and represents 30% of ASE firms. The study period extends from 2013 to 2016. This study relies on annual reports to extract the appropriate data. Thus, secondary data has been used as the main source of data.

3.2 Variables Measurements

3.2.1 Accounting Conservatism

Accrual-based conservatism proposed by Givoly and Hayn (2000) is one of the most common measurements of conservatism used by researchers. The accrual-based measure of conservatism (CBC) is computed as net income before extraordinary items and discontinued operations (INC) plus depreciation expense (DEP) minus operating cash flows (OCF) and deflated by total assets (TA). Then, the accrual value is averaged over a three-year period centred at year t , and multiplied by -1 and referred to as CBC, thus the higher the value the higher the CBC shows conservatism applied by firm (Givoly & Hayn, 2000). Averaging over a number of years can reduce the effects of any temporary large accruals because accruals may be reversed within one to two years (Ahmed & Duellman, 2007). Thus, financial data from 2012-2014 is required to measure 2013 CBC; and to measure 2014 CBC financial data from 2013-2015 is required. The sample year of this study is 2013-2016, thus six years complete accounting data (2012-2017) are required to measure accrual-based conservatism. The simple form is shown as follows:

$$\begin{aligned} \text{Accruals} &= [(INC + DEP - OCF)]/TA \\ \text{CBC} &= \text{Accruals}/(3 \text{ years}) * -1 \end{aligned}$$

3.2.2 Board of Directors Diversity

In this study, the independent variable is the board diversity, which is measured by gender diversity, education level, average age, and nationality diversity. To extract the appropriate data for these variables, the study used the part of the annual report that relates to members of the board of directors

3.2.2.1 Gender Diversity

Women represent the gender diversity of the board and it is calculated as the percentage of female directors on boards. This variable has been used in numerous prior studies as an independent variable (e.g., Ho et al., 2015; Garc ía-S ánchez et al., 2017).

3.2.2.2 Education Level

A higher education such as holding a Master's or PhD considers a strategic resource for companies as well as provides firms with a mix of competencies and abilities that assist in implementing the governance function (Ujunwa, 2012). Thus, in this study, education level is measured by the proportion of members holding a higher degree such as a Master's or PhD degree. This variable has appeared in some previous studies (e.g., Darmadi, 2011; Ujunwa, 2012; Akpan & Amran, 2014).

3.2.2.3 Average Age

In this study, average age means the average of the age of the board of directors' members. This variable has been used in several previous studies as an independent variable (e.g., Letting et al., 2012; Sartawi et al., 2014).

3.2.2.4 Nationality Diversity

In this study, nationality diversity is measured by the percentage of foreign directors on the board of directors. Numerous previous studies have used this variable as an independent variable (e.g., Darmadi, 2011; Ibrahim & Hanefah, 2016).

3.2.3 Control Variables

In addition to independent variables, some control variables have been used in this study such as firm size and leverage. Firm size is measured by a natural log of total assets. Leverage equals the ratio of total liabilities divided by total assets.

Table 1. Variables Definition

Variables	Acronym	Measurements
Dependent variables		
Accrual-based conservatism	CBC	Accruals = [(INC + DEP – OCF)] / TA CBC = (Accruals/3 years) x (-1)
Independent variables		
Gender diversity	GD	Percentage of women on boards.
Education level	ED	Proportion of members holding a higher degree such as a Master's or PhD degree
Average Age	AG	Average of the age of the board of directors' members
Nationality diversity	ND	Percentage of foreign directors on the board of directors
Control variables		
Firm Size	FS	Natural log of total assets
Leverage	LV	Total liabilities divided by total assets

3.2.4 Model Specification

To examine whether board diversity affects accounting conservatism, this study used the following panel data regression model:

$$CBC_{it} = \beta_0 + \beta_1 GD_{it} + \beta_2 ED_{it} + \beta_3 AG_{it} + \beta_4 ND_{it} + \beta_5 FS_{it} + \beta_6 LV_{it} + e_{it}$$

Where:

CBC = Accrual-based conservatism

GD= Gender diversity

ED = Education level

AG = Average age

ND = Nationality diversity

FS = Firm size

LV = Leverage

4. Results and Analysis

4.1 Descriptive Statistics

Tables 2 shows the descriptive statistics of variables used in analyzing the relationship between board diversity and accounting conservatism. The accounting conservatism (CBC) shows an average of around (-0.008), this finding supports previous work done in Jordan by Alkordi et al. (2017). This finding implies that the Jordanian firms becoming more conservative in their financial reporting and has become more compliant with the accounting standards. Moreover, negative conservatism ratio indicates to the increase in the accounting conservatism. The average female board member is 3% percent, with a minimum value of zero and a maximum value of 56 percent. This finding supports the figures reported by previous works done in Jordan such as Ibrahim and Hanefah (2016) and Al-Rahahleh (2017). But, this finding is lower than that reported in previous studies such as Garc á-Sánchez et al. (2017) in Spain who found that 10% of board seats under dominance female. Regarding the average age, the findings report that the average directors' age is approximately 52.8 years, with a maximum age of (71) years, and a minimum of (35) year, this finding is consistent with Sartawi et al. (2014) who found that the average age of directors is 57 years. Moreover, the average young members is around (12 %) (Younger than 40, as suggested by Ibrahim and Hanefah (2016), this implies that most of board members in Jordan are elderly.

The mean of education level is high, the findings report that (31%) of board's members have higher education such as Master's or PhD degree. The results also indicate that (9.5 %) are foreign. This finding is consistent with Ibrahim and Hanefah (2016). The average of total assets is (82468160) million Jordanian dinar. Also, average leverage (FLEV) is around (0.31%).

Table 2. Descriptive statistics

Variable	Mean	STD	Max	Min	Skewness	Kurtosis
CBC	-0.008	0.44	2.11	-4.13	1.32	2.08
GD	0.03	1.67	4	0	1.06	2.36
ED	0.31	0.38	0.88	0	0.18	-0.98
AG	54.8	6.56	70	32	0.28	-0.76
ND	0.94	0.36	0.85	0	1.59	0.65
FS	82468160	1526894	1564824652	525624	6	28.35
LV	0.31	0.326	2.35	0	1.02	1.36

4.2 Regression Results

Several tests were used to test the assumptions of panel data. As suggested by Haniffa and Hudaib (2006), this study adopts skewness within (± 1.96), and kurtosis (± 3) to check for normality. The results of skewness and kurtosis in Table 2 indicate that the data was normally distributed except in the firm size. Thus, it was transformed using the normal score to deal with the problems of non-normality of firm size. To examine the multicollinearity problem, the variance inflation factor test (VIF) was used to detect whether the data suffer from multicollinearity or not. According to Gujarati (2009), if $VIF > 10$, this implies that there is high multicollinearity. The findings in Table 3 indicate that the VIF values are not exceed 2.6, which is well below the acceptable value of 10. This implies the multicollinearity is not a problem in this study.

Table 3. Multicollinearity Test

Variable	VIF	1/VIF
CBC	2.6	0.38
GD	1.89	0.529
AG	1.11	0.90
ED	1.02	0.98
ND	1.19	0.84
FS	1.09	0.91
LV	1.26	0.79

Another tests such as Heteroscedasticity and autocorrelation tests have been used to ensure that the data were sufficient and the results are not misleading. To check for heteroscedasticity, Modified Wald test was used. Table 4 reports the findings of the Modified Wald test. The results indicate that there is a heteroscedasticity problem, where the p-value < 0.05 . The Wooldridge test has been undertaken to examine whether there is an autocorrelation problem in the data. The results in Table 4 indicate that autocorrelation does exist, where the p-value < 0.05 . Thus, the study used cluster-robust standard errors to deal with heteroscedasticity and autocorrelation issue (Wooldridge, 2012).

Table 4. Wald Test and Wooldridge test

	Chi ²	(Prob > chi ²)
Wald Test	2.00	(0.0000)
Wooldridge Test	9.191	(0.000)

In order to choose between the POLS model, FEM or REM, some econometric tests need to be conducted. The Breusch-Pagan LM test was used to choose between the POLS model and REM. According to the LM test, the results in table 5 indicate that the P-value is significant (P-value < 0.05). Thus, the REM model is more suitable than POLS regression model. In this situation, different test, such as the Hausman's test, is needed in order to choose between the REM and FEM. If the p-value is significant (p-value < 0.05) the FEM is more appropriate than the REM. The results in table 5 also present the findings of the Hausman test, the finding reports the p-value is significant (p-value < 0.05), thus FEM model is more suitable and should be used.

Table 5. Choosing the Appropriate Regression Model for Panel Data

	Chi ²	(Prob > chi ²)
LM Test	11.71	(0.0010)
Hausman Test	236.95	(0.0000)

4.3 Multivariate Analysis

The findings of Table 6 show the effect of board diversity on accounting conservatism. In this study, the fixed effect model was used with the cluster-robust standard errors to remedy for heteroscedasticity and autocorrelation, as suggested by (Wooldridge, 2012). It is clear from the table that the F-statistic is highly significant, which implies that the model has reasonable explanatory ability regarding the relationship between the board diversity and accounting conservatism and thus sufficiently describes the data.

Table 6. Regression Results of the Relationship between Board Diversity and Accounting Conservatism

Variables	Predict sign	Coefficients	t-Statistic	P-value
Constant		0.510	3.157	0.0017***
GD	+	0.733	5.823	0.0000***
ED	+	0.285	2.199	0.0284**
AG	+	0.188	1.444	0.1492
ND	+	0.651	0.840	0.0018***
FS		1.265	0.966	0.0342**
LV		1.788	6.990	0.0000***
Adjusted R ²		0.4326		
F-statistic		15.265***		

*, **, *** indicates significance at the 10%, 5%, 1%, levels

GD= Gender diversity, ED= Education level, AG= Average age, ND= Nationality diversity, FS= Firm size, LV= Firm leverage.

The findings indicate that gender diversity (GD) is significantly related to accounting conservatism (CBC), and the coefficient sign of this relationship is consistent with study expectations. This implies that the female participation exhibit higher level of accounting conservatism. This findings support the results in several previous studies (e.g., Barua et al., 2010; Peni & V äh ämaa, 2010; Ho et al., 2015), which indicate that women involvement on boards enhance board monitoring, because the female directors are more ethical and risk averse, tend to report more conservative earnings and they have the ability to recognize bad news in reported earnings in a more timely fashion. This result is consistent with Ginesti et al. (2018), who found that the existence a considerable proportion of female directors on the board gives more quality and transparency for financial statements. In context of Jordan, this result supports the findings in previous studies who are addressed the role of female members in Jordan, (e.g., Qasem & Abdullatif, 2014; Ibrahim & Hanefah, 2016; Al-Rahahleh, 2017; Mohammad et al., 2018), which indicate that women play a significant role in enhancing the creditability of financial statements and improve the disclosure mechanisms. Thus, this result asserts that female members in the boardroom provide more conservative reporting practices. Therefore, the study suggests that Jordanian companies should appoint female members on boards.

The findings show that the relationship between education level and accounting conservatism is positive and significant, and the coefficient sign of this relationship is consistent with study expectations. The significant and positive effect implies that when there are more directors with a higher education degree (Master's or PhD) sitting on the board, gives higher levels of accounting conservatism. This finding supports previous work (e.g., Yunos, 2011; Pulungan & Sadat, 2014). Moreover, this finding is also in line with upper echelon theory and resource dependence theory, when directors have had a higher education level; they get sufficient skills in strategic thinking and decision-making because this level of education gives up access to a creative of ideas to deal with information and decision making. Moreover, these theories argued that the female directors have the ability to process data and to deal with continuous changes. Finally, this finding supposes that all Jordanian listed companies should have at least one or more of directors who are qualified and have higher education degree.

The results indicate that the average age has an influence on accounting conservatism. Table 6 shows that the relationship is positive but insignificant. This finding is supportive of this study hypothesis, which posits that there is a positive relationship among accounting conservatism and directors' average age. This result suggests that age diversity does not matter to accounting conservatism, which implies that there is no notable distinction between the younger and older directors regarding the accounting conservatism.

With respect to the influence of the nationality diversity on accounting conservatism, the findings indicate that there is a positive and significant relationship between the existence of foreign members and accounting conservatism. This finding is consistent with study expectations. The positive finding means that the presence of foreign directors can strengthen the accounting conservatism practices. In other words, a board of directors dominated by foreign members will require more quality information, so that they will tend to be using more conservative accounting procedures. This finding is consistent with viewpoint of upper echelon theory and resource dependence theory, which argues that foreign members provide additional value to boards through their possession of other skills and experience and give more conservative warranty estimates. Moreover, the finding supports the result of Schultz Jr and Lopez (2001); Yunos (2011) they conclude that the presence of foreign members enhances the practices of accounting conservatism. Consequently, this result proposes that nationality diversity on the board provides more conservative reporting practices. Thus, the study suggests that Jordanian companies should take into account national diversity when choosing members of the board of directors.

As regards control variables, firm size and leverage were used as control variables. The findings indicate that there are positive and significant relationship between the firm size, leverage and accounting conservatism.

5. Conclusion

The main objective of this study is to improve our understanding of the impact of board diversity on accounting conservatism among Jordanian listed firms during 2013-2016. Four demographic characteristics of directors have been investigated, namely: gender diversity, education level, average age and nationality diversity. Accounting conservatism was measured by accrual-based conservatism as suggested by Givoly and Hayn (2000). The outcomes confirm the monitoring role of board of directors, noting to the positive influence of board diversity on accounting conservatism and in enhancing the credibility of financial reporting. Overall, findings show that the gender diversity, education level, and nationality diversity are positively and significantly related to accounting conservatism. While the relationship between average age and conservatism is positive but not significant. The positive influence of board diversity on accounting conservatism suggests that it is necessary to take board diversity (directors' demographic characteristics) into account in order to understand the effectiveness of the board of directors because demographic characteristics (such as gender diversity, education level, average age, and nationality diversity) influence directors' behavior when they face any problems, especially those problems or issues that are related to implementation of accounting principles. This is in line with Volpe and Woodlock (2008) who argued that board of directors is responsible to assess main issues on accounting principles and credibility of financial information.

This study contributes to the literature on board diversity and accounting quality, as it sought to study whether the board diversity leads to improve the financial reporting quality and enhances the disclosure process. Consequently, the finding of this study presents considerable evidence from a developing country that contributes to the literature on the impact of the directors' diversity on accounting conservatism and to improve the effectiveness of board of directors in the Middle East region and Jordan particularly. Therefore, the outcomes of this study can be generalized to other countries that have similar cultural and economic considerations. Consequently, the substantial implications of this study concern the conclusions that have to be drawn by firms, directors, regulators, stakeholders and public bodies directly associated to the promotion of board diversity through the existence of female members, foreign members, and directors who have a higher education which improves the accounting quality and enhances transparent of financial reporting.

Furthermore, the study findings may have useful implications for regulators and policy-makers to enhance the transparency by issuing modern requirements to improve decision-making processes, and hence, to improve practices of accounting conservatism.

Finally, this study is subject to some limitations. Firstly, this study does not examine the effect of other diversity variables that may influence the conservatism accounting and affect the creditability of financial statements, such as ethnicity and professional expertise. Thus, it would be useful to for future studies to examine the influence of these characteristics. Secondly, the study focused only on one measure of accounting conservatism. Thus, future studies may use other measurements for accounting conservatism.

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