WOMEN IN JORDANIAN BANKS AND 
PERFORMANCE: FINANCIAL ACCOUNTING 
MEASUREMENT

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Abstract

This study highlights the gender diversity issues in the banking sector taking into consideration their impact on the performance measured by profitability (ROA). As the banking sector has widely been ignored from the previous studies due to their strict system, this study empirically examined the impact of the CEO gender and board with a female director on the performance of the Jordanian commercial banks in a period from 2004 to 2013. The multiple regression analysis shows that the banks with female CEOs underperform their counterparts run by male CEOs. The reason could be due to their harmonious relationships orientation; that is, women do not tend to invest in risky investments. However, female director plays insignificant roles on the performance which supports the evidence of tokenism as argued by the psychological social theory.

Keywords: Jordanian Banks, Performance, Financial Accounting

1. INTRODUCTION

Profitability is considered as one of the important elements that attract the investors to specific firms. Investors seek the financial stability and security and the ability to generate profits in the long term before investing in a specific business (Al Manaseer, Al-Hindawi, Al-Dahiyat & Sartawi, 20 12; Khan, Nemati & Iftikhar, 2011; Mallin, 2007). Resulting from the financial crisis and the collapse of the big corporations in the world, the investors have lost their confidence in the markets, legislative bodies and agencies. Therefore, good level of accountability and transparency is essential to attract investors and capital funds and for financial security and stability (Ghabayan, 2012).

Corporate governance has attracted the attention of both academicians and practitioners in the contemporary studies due to corporate scandals and the failures of some biggest firms in the market. Good corporate governance system is considered as a good solution to improve firm performance and firm transparency. In this modern environment, the competitiveness between the competitors results in increase in the uncertainty and the risk level in the market (Kuratko & Morris, 2003). Corporate governance has been generally regarded as the enhancer of firm performance and protector of shareholders' interests. Sound corporate governance plays a crucial economic role as it fosters a sound connection between the firm and its environment.

Corporate governance also facilitates companies in securing their vital resource by attracting fresh capital funds as well as investors. Sound corporate governance can also be employed as an instrument for management monitoring and for internal governance. Good corporate governance is effective in assisting firms in attaining superior performance. The practice of corporate governance mechanisms will significantly attract investors both local and foreign. When the Code of Corporate Governance is properly executed, companies can avoid financial clashes and diminish corruption. This, according to Al-Matari, Al-Swidi, Faudziah and Al-Matari (2012), will improve the growth of firm in its entirety, which collectively affects the stimulation of the whole economic growth and development of the country.

Board diversity is considered as one of the main attributes that enhance the firm performance (Carter, Simkins & Simpson, 2003; Smith et al., 2006; Rose, 2007; Francoeur et al., 2008; De Cabo et al., 2012). In addition, female CEOs are found to be more ethical and less participating in ethical activities (Betz et al., 1989; Bernardi & Arnold, 1997). Therefore, this study will empirically examine the impact of female CEO and female director in the board and bank performance. It is possible that having greater fraction of female directors in the board would generate additional perspectives and issues for consideration in the board meetings. This could foster decision achievements that are sounder. In fact, a board with diverse perspectives may initiate greater amount of conversations between board members and this assists in the attainment of the corporations' needs (Bear, Rahman & Post, 2010). Further, greater portion of female directors can lead to more effective monitoring and evaluating of firm in terms of its strategy and accountability (Brown et al., 2002). Apart from that, having female directors in the boardroom improves the utilisation of non-financial performance measurements in the firm.

Numerous domains including the domains of management and psychology have comprehensively scrutinised the issue of gender differences. Nevertheless, the CEO gender/ CEO director- firm
performance relationship is still an area of interest to find link in such relationship (Krishnan & Parsons, 2008; Khan & Vieito, 2013). More interestingly, this study focuses on the banking sector; the sector which has been widely ignored in previous studies. In addition, the study is conducted in new developing environment which is Jordan. The developing countries in general and the Arabic countries more specifically are categorized as less gender-equity oriented. Therefore, this study empirically examines the impact of the female CEO and female director on the bank’s financial performance.

In general, females are labelled as naturally less overconfident, less assertive, less aggressive, more risk averse, more anxious and also more ethical. These qualities, according to (Maccoby & Jacklin, 1974; Powell & Ansic, 1997; Vermeir & Van Kenhove, 2008) denote a mindset that is conservative and a low tendency to engage in fraudulent activities. Meanwhile, top management’s personal attributes potentially impact the way companies are run. To illustrate, the control environment is impacted by the COSO internal control-integrated framework and the top management’s ethical values and philosophies. As such, possessing a mindset that is conservative and practicing ethical leadership, female CEOs could become a factor to a sounder internal control environment, stressing more on financial reporting that is conservative as well as ethical.

Further, the 2002 Sarbanes-Oxley Act stipulates that senior executives have the personal responsibility to ensure the accurateness and comprehensiveness of corporate financial reports. Due to this, female CEOs possessing a mindset that is conservative and the firm being against fraud, adherence to the Sarbanes-Oxley Act and conservatism in accounting by such firm is expected. Conservatism entails accounting’s core principle that generates significant economic outcomes. As reported by the past researches, accounting conservatism effectually safeguards the interests of shareholder as it functions as a governance mechanism that restricts managerial opportunism (Francis & Martin 2010; Bushman et al. 2011). Besides, dearth of conservatism could generate grave accounting and economic outcomes.

The next section presents the literature review and the hypothesis development, followed by the research methods. The fourth section presents the data analysis and empirical results. Fifth section discusses the results of this study while the conclusion and future works are placed in the last section.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Female CEO and firm performance

In business community, the general belief is that female-controlled business underperforms the male controlled one. Fischer, Reuber and Dyke (1993) argued that women had relatively less experience than men, resulting in underperformance. In addition, women-owned businesses are less successful and face the failure more than men-owned businesses (Cuba, Decenzo & Anish, 1983). Some literature investigated the reaction of the shareholders when the firms appoint new CEO. Using a sample of 1556 observations of CEO changes, Lee and James (2003) found that the shareholders show more negative response when a firm appoints a female CEO compared to appointing a male CEO. On the other hand, the shareholders respond less negatively if the female is appointed from within the company (Lee & James, 2003).

Employing the US-based Russell 3000 companies’ data alongside the Fama-French three factor model, Gondhalekar and Dalmia (2007) deduced that the unusual returns at the CEO appointment’s announcement are faintly positive for female CEOs but for male CEOs, it is zero. According to Bartlett and Miller (1985), female CEOs who obtain top position generally possess a good network. Adams, Haughton and Leeth (2007) further added that these female CEOs have linkage with the industry’s top professionals and are highly educated. Moreover, Buress and Zucca (2004) reported that on average, females who achieved the top positions are younger than the males within the similar situation.

As managers, female CEOs appear to be less adventurous. In fact, firms that have high risk are inclined to engage female CEOs so that they could decrease risk (Martin, Nishikawa & Williams, 2009). In relation to this, as reported by Elsaid and Ursel (2011), the data of 679 CEO successions among firms in North America demonstrate that a change in the gender of CEO, that is, from male to female, decreases the risk faced by firm. Additionally, corporations managed by female executives appear to contain lower leverage, less unpredictable earning and have a greater survival probability in comparison to those managed by male executives (Faccio, Marchica & Mura, 2015). Risk tolerance’s difference is also present within the investment of mutual fund. As discovered by Niessen and Ruenzi (2006), female fund managers are inclined to opt for investment that is more stable aside from trading considerably less in comparison to their male counterparts. Somehow, with regard to the impact of women in top management on financial performance, Francoeur et al. (2008) found no inclusive clear link.

A number of scholars including Barber and Odean (2001) and Bliss and Potter (2002) indicated that aside from avoiding risks, females are more concerned with how the money of the company is spent and are also usually less likely to gain personal benefits from the company in comparison to their male counterparts. In relation to this, Ford and Richardson (1994) added that the decisions in the workplace made by females are more ethical in comparison to those made by their male counterparts. Further, scholars including Vandegrift and Brown (2005) found that in comparison to males, females appear to be more risk averse affecting their financial decisions. Further, in comparison to the male counterparts, females managing the mutual funds appear to accept less unsystematic risk and go for investments that are more stable (Niessen & Ruenzi, 2006).

Within the domain of psychology, researches have indicated that in negotiations, women appear to underperform men (Niederle & Vesterlund; 2007; Vandegrift & Yavas, 2009). Instead, Eckel, Oliviera
and Grossman (2008) are more inclined to express cooperation and be less demanding. Within mixed-gender negotiations, the past literature in psychology and management has also reported men to be outperforming women (Kray & Thompson, 2004). In addition, Kray and Thompson (2004) highlighted the stereotypical masculine traits including independence, assertiveness, and rationality as valuable at the bargaining table. On the other hand, women are inclined to show concern for others and behave emotionally and passively. Within the context of bargaining, these qualities make women more accommodating and less competitive. As reported by Riley and Babcock (2002), due to their risk aversion tendency, females perform poorly in ambiguous negotiations.

It should be noted that in order to become corporate leaders, female executives would have to undergo a rigorous selection process. However, Martin et al. (2009) and Faccio et al. (2015) indicated proof that supports the fairly higher risk aversion behaviour amongst female executives. Moreover, it is likely that female CEOs would be faced with constraints during negotiations owing to the aforementioned obstacles including lack of mentoring, marginalisation from informal network, and personal responsibilities and obligation to family (Catalyst, 2004).

Frye and Pham (2015) reported that, compared to males, females appear to possess weaker bargaining skills. With respect to gender differences in a competitive setting, men and women appear to act in a different way in negotiations. Most researchers came to a conclusion that women are inclined to show poor performance compared to men in negotiations in diverse settings. As demonstrated in the experiments, Niederle and Vesterlund (2007) and Vandegrift and Yavas (2009) reported that women are inclined to avoid from competition even when the two sexes were given similar task performance. Compared to men, women are inclined to be more egalitarian and, in negotiation, women frequently ask for less (Eckel et al., 2008). Also, women appear to be more perceptive to the negotiation’s context and compared to men, women are less likely to fail in reaching an agreement (Eckel et al., 2008). Additionally, compared to men, women are also less inclined to start negotiation and request for things (Babcock & Laschever, 2003).

The probability that female CEOs would acquire other firms is lower compared to that of male counterparts (Huang & Kigsen, 2013). Likewise, firms that have more female directors show fewer acquisition bids’ initiation (Levi, Li & Zhang, 2014). Studies in the domains of management and psychology have indicated the superiority of men’s performance in comparison to women’s less negotiations involving mixed genders (Kray & Thompson, 2004). As emphasised by Kray and Thompson (2004), the stereotypical masculine traits including independence, assertiveness and rationality are beneficial during bargaining. Acting emotionally, being concerned about others, and being passive are among the tendencies of females. These traits demoralise negotiation with women’s less competitive during bargaining. As such, female CEOs are perceived as more cooperative and they succumb to what shareholder wants in order to preserve their own interests.

Female firms appear to demonstrate superior performance with respect to quality of earnings and return on assets (Krishnan & Parsons, 2008; Khan & Vieto, 2013). Further, following the appointment of female CEO, firms are found to incur substantial decreases in idiosyncratic risk (Martin et al., 2000; Faccio et al., 2015). Conversely, a number of scholars including Atkinson, Baird, and Frye (2003) discovered no significant differences between male fund managers and their female counterparts. As claimed by Johnson and Powell (1994), managers, irrespective of gender, demonstrate the same amount of risk inclination and the decisions that they make are of equal quality.

Firms that practise gender diversity in senior management have been linked with superior earnings quality (Krishnan & Parsons, 2008). Further, following the process of IPO, firms that employ greater number of females in senior management appear to generate more profit and greater amount of stock returns in comparison to firms that employ less number of females within the board ownership (Krishnan & Parsons, 2008). Fortune 500 firms reported that firms that employ higher number of female executives generate greater profitability corresponding to their average sector profitability (Erhardt, Werbel & Shrader, 2003). Further, on empirical findings of long term study show appointing women in the top management team generates greater amount of earnings and shareholders’ wealth (Welbourne, 1999).

Further, in the context of USA, Guthrie and Roth (1999) reported that women’s promotion to top positions is usually dictated by the institutional/legal environment surrounding the industry; in this case, the public versus private firms, in which employment is pursued. The authors further stated that the internal labour market of certain business appears to be influential in determining all decisions related to hiring. For instance, industries that are involved in the selling of products or services that are mainly bought by women or women entail the key decision makers in the buying process appear to make available more flexibility for female progression to the top positions (King & Cornwall, 2007). For such companies, it is beneficial to hire females in top positions seeing that female executives possess greater comprehension when it comes to female customers’ needs and behaviour.

The performance of firm is impacted by the demographics of CEO (Wiersona & Bantel, 1992). In particular, duration of service (in the given position), the number of years joining the firm, level of education, and functional background affect the performance of firm. In scrutinising the linkage between the background of CEO and the spending of R&D, Barker and Mueller (2002) reported significant increases in R&D expenditure amongst firms with CEO that holds advanced science degree. Meanwhile, in justifying immense pay differences, Edmans, Gabaix and Landier (2009) reported minor differences in the capacity of CEO talent. In fact, the authors completely attributed the increases in CEO pay from 1980 all the way to 2003 to increases in market capitalization of big companies. Better corporate governance is related to increases of CEO compensation (Hermalin, 2005), and higher
recompense compensates for the bigger possibility of being sacked.

Within the big corporations, preferred educational backgrounds are a factor in appointing CEO and CEOs that have no college degree appear to be recompensed significantly more in comparison to those holding a college degree whereas proof that the gender diversified impact of CEO compensation is insignificant (Jalbert, Rao & Jalbert, 2002). The specified degrees obtained by CEOs were examined by Jalbert, Jalbert and Perrina (2004) as degrees are linked to CEO's salary. The authors found that the overall pay earned by an individual CEO is dictated by the degrees he or she possesses. Further, the authors reported that CEOs that have different degrees had been serving the firm for many years. These people began serving for the firm and were appointed to be CEO at different ages, and had been with the firm for different durations of time before being appointed (as CEO). Based on the above argument, the first hypothesis is formulated: H₁: there is a significant relationship between female CEO and bank performance.

2.2. Female director and performance

The board diversity is viewed as one of the important characteristics of the board in different theories. The resource dependency theory and agency theory emphasize on the importance of board diversity. However, the theorists refer to the experience diversity (resource dependency theory) and board composition (agency theory) rather than gender diversity. Very few authors have highlighted the importance of the gender diversity on the boards. From the resource dependency theory’s perspective, Hillman et al. (2002) argued that female directors bring different perspectives to the board because they often have experience outside of the business. Initially, different gender results in different interests and opinions. Females may shed some light on different issues. Different opinions help the board to challenge questionable management practices (Ramirez, 2003). In the human capital theory’s perspective, the board diversity has an effect on the performance of the board and the effect might be positive or negative (Carter et al., 2010).

Post and Byron (2015) used upper echelons theory (UET) as the framework underpinning their meta-analysis owing to the framework’s strong theoretical foundation that links the diversity of board with the outcomes of firm. UET was initially focusing on teams of top management. However, it is recently being employed to boards of directors. UET equates boards to “supra top management teams” (Finkelstein et al., 2009: 11). UET perceives directors as possessing different cognitive frames which impact the outcomes of firm (Hambrick, 2007). It should be noted that it is not easy to capture the cognitive frames of directors. Owing to this, Krishnan and Park (2005) and Dezsó and Ross (2012) stated that researches that employ UET to board directors have applied directors’ observable characteristics such as their gender or race as the cognitive frames’ proxies.

Gender diversity issue has brought to the table the economic and ethical arguments (Brammer et al., 2007). Within the economic domain, the past works on the subject of corporate governance advocated that board diversity has positive impact on firm value. For instance, Carter et al. (2003) and Smith et al. (2006) reported a positive linkage existing between the proportion of female directors joining the board and firm performance. Meanwhile, with respect to ethics, women have been perceived as having different interests in comparison to men (Betz et al., 1989). As reported by Betz et al. (1989) and Bernardi and Arnold (1997), women are less inclined to engage and involve in unethical businesses because they want to preserve harmonious relationships. On the other hand, Butz and Lewis (1996) reported that men appear to be more concerned with the economic profits. The authors further stated that men appear to be more ambitious career-wise and they want to succeed notwithstanding of the rules.

The empirical results of the previous studies have shown some important roles of the board diversity. More seats occupied by the females in the board improve the effectiveness of the board and enhance the decision making as a whole (Adams & Ferreira, 2004). Female directors are found to be more prepared in the boards and they are well-prepared for the meetings, resulting in their enhanced roles in the decision making process (Adams & Ferreira, 2004; Huse & Solberg 2006). Being prepared for meetings makes it possible for female directors to substantially impact the decision making. On the other hand, being insufficiently prepared, the male directors increase the possibility of women to enhance their status as directors. The empirical result indicated that firms with more female directors serving in the board have better work environments (Bernardi et al., 2006; Johnson & Greening, 1999). Additionally, female directors create good atmosphere in the boards (Segal, 1996; Bilmorina & Huse, 1997). Thus, women play significant roles in facilitating the openness and kindness in the boards (Huse & Solberg, 2006).

Some of the previous studies found that the presence of the female directors in the board and firm performance are positively related. Rose (2007) found that female directors positively enhance ROA but not Tobin’s Q in Copenhagen Stock Exchange during the 1998-2003 periods. In addition, more female directors serving on the board and higher firm performance is empirically proven (Carter et al., 2003; Smith et al., 2006). Francoeur et al. (2008) found a positive relationship between female directors and financial performance for firms operating under difficulties with a large risk of failure. They concluded that the impact of the female directors on the firm performance depends on the firms’ situation.

Based on the UET, female directors appear to be more inclined to bring to the board diverse cognitive frames owing to dissimilarities in experiences and knowledge. This expands the presently considered pool of knowledge. For instance, Hillman, Cannella and Paetzold (2000), Hillman, Cannella and Harris (2002) and Carter et al. (2010) reported that female directors are more likely to hold more university degrees and advanced degrees in comparison to their male counterparts. Further, Groysberg and Bell (2013) reported that females are more inclined to report possessing strengths both sales and marketing.
Singh et al. (2008) scrutinised appointments of new director in UK firms and concluded that it is likely that the new female directors would be non-nationals in comparison to the new male counterparts. Female directors are also perceived to introduce new experiences and knowledge to the board owing to their directorships’ path. According to Hillman et al. (2002) and Singh et al. (2008), it is not likely that these female directors were holding the position of CEOs or corporate operating officer (COOs) prior to being appointed and instead, it is more likely that they originate from non-business settings. New experiences which came from their non-business experience may also be introduced by female directors.

Additionally, Kopczuk, Saez and Song (2010) reported the narrowing of gender gap in earnings. As such, Phipps and Burton (1998) stated women now have more influence and control in the buying decisions of household. As indicated by Bilimoria and Wheeler (2000), Carter et al. (2003) and Campbell and Minguéz-Vera (2008), this possibly results in female directors introducing fresh and different perspectives to consumer markets. However, further studies that delve into the differences between female and male directors indicated that female directors admit to possessing a set of non-work interests that is more diverse aside from possessing higher interest in engaging in community service and philanthropy (Groysberg & Bell, 2013). Such interest differences together with their social networks have the likelihood to transform into acumen applicable to the numerous stakeholders of firms.

Moreover, in studying female board representation and corporate value among the selected Spanish firms, Campbell and Minguéz-Vera (2008) concluded no clear relationship between the two variables (female board representation and corporate value). However, after the 40% of a gender-quota law was implemented in the Spanish context, Reguera-Alvarado et al. (2015) found that more proportion of the women in the board positively improve the financial performance because the female directors provide social visibility and attract skilled human. Conversely, the gender quota law in the US has insignificant impact on the firm performance. Adams and Ferreira (2009) and Carter et al. (2010) did not find a significant association between board diversity and firm financial performance in the US firms. The results of their studies lead them to conclude that the gender quota is ineffective in the US market. Similar result was found in the Denmark context where the gender quota is not a law but recommended in the corporate governance code (Rose, 2007). In the banking sector, Mateos de Cabo et al. (2011) examined the impact of the gender diversity in the European banks and found no significant relationship between female directors and firm performance. They concluded that females tend to serve in the less risky banks.

In another country with gender quota, Norway, a negative link was found between proportion of female directors and firm value (Bohren & Strom, 2010). Unlike the male directors, female directors obtain board experience working in smaller firms and therefore, there is less likelihood that they possess experience of being CEO or Chief operating officer (COO) prior to being appointed in the new firm (Singh et al., 2008). Further, Hillman et al. (2002) reported that, unlike the male directors, female directors are more expected to possess non-business backgrounds’ expertise and introduce fresh perspectives to the board. The authors further mentioned that women on boards have more likelihood to become the specialists and the community’s influential people in comparison to their male counterparts. In relation to this, Smith et al. (2006) concluded that female’s positive impact on firm performance is dictated by their qualifications.

Furthermore, Dwyer et al. (2003) deduced in their study that the effect of gender diversity on firm performance hinges on the context of the organization it belongs. The authors suggest that within management, gender diversity should improve performance for firms that pursue growth. Studying on selected Danish firms, Smith et al. (2006) concluded a positive gender-firm performance effect being linked to numerous measures of accounting-based performance. Nonetheless, the authors reminded that all effects have close connection with the each female manager’s attributes. Based on the above argument, the second hypothesis is formulated:

\[ H_2: \text{there is a significant relationship between presence of female director and bank performance.} \]

2.3. Bank size

The size of the firm is considered as one of the main control variables in performance studies. Previous studies (e.g. Patro, Lehn & Zhao, 2003) link the board size and corporation growth to the firm size. Further, large companies are likely to be professional companies (Liu et al., 2006). In addition, larger firms are found to have agency issues and more ambiguity (Patro et al., 2003). Empirically, small listed firms outperformed their large counterparts in Saudi Arabia in terms of ROA (Alzharani, Che-Ahmad & Aljaaidi 2012). Other evidence indicated that firm size can influence the impact of the ownership on the firm performance (Anderson & Reeb, 2003; Barontini & Caprio, 2006; Sacristan-Navarro et al., 2011). As a result, previous authors emphasize on the firm size as an effective control variable.

2.4. Leverage

Leverage is widely used to control the corporate governance-firm performance relationship (e.g. Chiang & Lin, 2011; Herly & Sisuhadi, 2011; Kang & Kim, 2011; Khatab et al., 2011; Wahla et al., 2012).

2.5. Years (time period)

This study considers the year as a control variable in order to measure the performance of the Jordanian banks during the ten years-period (2004-2013). The use of this variable gives a clear indication about the performance of the banks over ten years in order to know the reasons which led to the fluctuation of the performance of the banks especially that the period of this study cover the period of the global financial crisis hitting the global economy.
3. EMPIRICAL METHOD

3.1. Sample

The financial sector is the focus of this study due to the lack of studies (Ismail & Chandler, 2005; Barako & Brown, 2008). In Jordan, the banks either are to be publicly listed or institutionally owned (Jordanian Bank Act, 2006). There are 16 Jordanian banks in Jordan, 13 are listed and one is owned by another bank. Also, three of those banks are Islamic banks. The focus of this study is the commercial banks, one other word; the three Islamic banks are not included. Therefore, 13 banks are considered in this study in a period of 10 years (2004-2013). However, seven observation were missing resulting in reduce the total observations to 123 observations-years (unbalanced panel data). All the data is gathered from secondary source (banks’ annual reports).

3.2. Research model

The following regression model is utilized to examine the impacts of the independent variables on bank financial performance:

\[
ROA = \beta_0 + \beta_1FCEO + \beta_2FDIRECT + \beta_3LOGSIZ + \beta_4LEV + \beta_5YEAR + \epsilon
\]  

(1)

Where:

- ROA is the bank financial performance measured by earnings before tax divided by total assets of the bank. Similar measurement was used in the previous studies (e.g. Al-Matari et al., 2012; Ghabayen, 2012; Saibaba & Ansari, 2013).
- FCEO is female CEO measured as a dummy variable equals to one if the CEO is a female and zero otherwise. This measurement was widely used previously (e.g. Riley & Babcock, 2002; Kray & Thompson, 2004; Krishnan & Parsons, 2008; Martin et al. 2009; Huang & Kisgen, 2013; Khan & Vieto, 2013; Faccio et al. 2015).
- FDIRECT is female director equals to one if the board of directors has at least one female and zero otherwise. This measurement is used by past studies (e.g. Carter et al., 2003; Smith et al., 2006; Rose, 2007; Ahern & Dittmar, 2011; Oba & Fodio, 2012).
- LOGSIZ is the natural log of the total assets. Similar to other studies (e.g. Anderson & Reeb, 2003; Liu et al., 2006; Peng et al., 2010; Amran & Che-Ahmad, 2013; El-Chaarani, 2013; Ibrahim & Samad, 2013), this study will use the same measurement.
- LEV is leverage and it is measured as the book value of long-term debt divided by total assets (Anderson & Reeb, 2003; Alsaeeed, 2006; Martinez et al., 2007; Al Matari et al., 2013; Amran & Che-Ahmad, 2013).
- YEAR the time period, the value of one is given to the year during the period and zero otherwise.

4. DATA ANALYSIS AND FINDINGS

This section presents the data analysis procedures; descriptive analysis Pearson correlation and multiple regression analysis.

4.1. Descriptive analysis

As shown in the table 1 the female CEOs run almost nine percent of the banks in Jordan. This indicates that the majority of the Jordanian banks are run by male CEOs (91%). This low presence of the female CEOs in the Jordanian banks might be related to the CEO experience. That is, females in Jordan normally retire earlier than males. Therefore, it might not be possible for the banks to appoint a young CEO (either males or females) due to the complexity of the bank activities. However, the presence of the female director in the Jordanian banks is more frequent compare to female CEOs. That is, 28% of the banks have at least one female serving in the boards. This percentage is relatively low compare to the developed countries due to differences in culture. In addition, some of the western countries started using quota for board diversity such as USA (Adams & Ferreira, 2009; Carter et al., 2010), Spain (Reguera-Alvarado et al., 2015) and Norway (Bohren & Storm, 2010). As a result, more women are joining the boards in the aforementioned countries.

Table 1. Descriptive of female CEO and female director

<table>
<thead>
<tr>
<th></th>
<th>Observations (n=123)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>Female CEO</td>
<td>11</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Male CEO</td>
<td>112</td>
<td>91%</td>
<td></td>
</tr>
<tr>
<td>Board with Female Director</td>
<td>35</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>Board without Female Director</td>
<td>88</td>
<td>72%</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Descriptive analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Unit</th>
<th>Mean</th>
<th>St. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>123</td>
<td>Ratio</td>
<td>0.020</td>
<td>.009</td>
<td>-.001</td>
<td>.059</td>
</tr>
<tr>
<td>Bank Size</td>
<td>123</td>
<td>Number</td>
<td>146,356,5453</td>
<td>.480</td>
<td>167,688,904</td>
<td>253,246,5748</td>
</tr>
<tr>
<td>Leverage</td>
<td>123</td>
<td>Ratio</td>
<td>.847</td>
<td>.103</td>
<td>.089</td>
<td>.963</td>
</tr>
</tbody>
</table>

The average ROA in the Jordanian banks is two percent which is more than the ROA in the bank holding companies (Adams & Mehran, 2005) who reported a profitability of one percent. In addition, the banking sector in the US reported losses of 11% (Jizi et al., 2014). However, Italian banks reported an average of eight percent in their ROA (Prete & Stefani, 2015). The low level of profitability in the banking sector might be due to their huge assets. However, it might present the ability of the banks to employ and invest their capitals.

4.2. Pearson correlation

Weisberg (2005) stated that the Pearson correlation is used to test the correlation between independent variables and dependent variable in one hand, and between the independent variables to each other in the other hand to detect the multicollinearity. The multicollinearity is considered as problematic if the correlation between two independent variables reaches to 0.80 (Gujaratii, 2003). In this study, the multicollinearity is not considered as a problem;
Pearson correlation matrix in Table 3 shows that the highest correlation between two independent variables is 0.42 which is less than the cut-off point of 0.80.

Alternatively, various inflation factor (VIF) and tolerance inflation factor (1/VIF) are utilized to confirm that the data is free of the multicollinearity problems. By using VIF, the value of VIF is considered as an issue if it is higher than 10.00 (Hair et al., 2006). In addition, the cut-off point for the 1/VIF is less than 0.10 to be considered as an issue (Pallant, 2011). In this study, neither VIF nor 1/VIF shows an issue of multicollinearity as shown in Table 3.

### Table 3. Pearson correlation and various inflation factor

<table>
<thead>
<tr>
<th>Variables</th>
<th>ROA</th>
<th>FCEO</th>
<th>FDIRECT</th>
<th>LOGSIZ</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCEO</td>
<td>1.47</td>
<td>0.68</td>
<td>-0.093</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>FDIRECT</td>
<td>1.20</td>
<td>0.83</td>
<td>-0.078</td>
<td>0.371***</td>
<td>1.000</td>
</tr>
<tr>
<td>LOGSIZ</td>
<td>1.20</td>
<td>0.79</td>
<td>0.169</td>
<td>0.000</td>
<td>-0.426***</td>
</tr>
<tr>
<td>LEV</td>
<td>1.01</td>
<td>0.90</td>
<td>0.223**</td>
<td>0.017</td>
<td>0.034</td>
</tr>
</tbody>
</table>

### 4.3. Multiple regression analysis

In panel data, the researchers are advised to employ Husman test in order to choose between fixed effect model and random effect mode (Greene, 2011). Significant p-value indicates a rejection of random effect and acceptance of fixed effect. In fixed effect model, Torres-Reyna, (2007) recommended the data to check for using the year as a control variable by using a written command (testparm lyear).

Significant p-value indicates that the coefficients for all years are jointly not equal to zero. Therefore time fixed effects are needed in this case (Torres-Reyna, 2007). The year as a control variable is considered important in this study. The $R^2$ was 15% when the year-period was excluded, then the $R^2$ is increased to 51.7% after the year was regressed in the model as shown in Table 4 model (1). This indicates that the year-period is considered as important variable in explaining the $R^2$ in the Jordanian banks.

### Table 4. Multiple regressions analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model (1)</th>
<th>Model (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef</td>
<td>t</td>
</tr>
<tr>
<td>Constant</td>
<td>0.185</td>
<td>1.11</td>
</tr>
<tr>
<td>Female CEO</td>
<td>-0.003</td>
<td>-2.35**</td>
</tr>
<tr>
<td>Presence of Female Director</td>
<td>0.001</td>
<td>0.81</td>
</tr>
<tr>
<td>Proportion of Female directors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Size</td>
<td>-0.007</td>
<td>0.91</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.006</td>
<td>1.7</td>
</tr>
<tr>
<td>Years</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>123</td>
<td>123</td>
</tr>
<tr>
<td>Number of Group</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Prob $&gt; F$</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>R - Square (Within)</td>
<td>0.517</td>
<td>0.5158</td>
</tr>
</tbody>
</table>

**Note:** ***> 0.01, **> 0.05 and * > 0.1

The first hypothesis postulates a significant relationship between female CEO and ROA. As shown in the Table 4, model (1), female CEOs underperformed their male counterparts, thus the hypothesis is supported with a negative direction. Similar results were found in the previous studies (e.g. Fischer et al., 1993; Kray & Thompson, 2004; Niederle & Vesterlund; 2007; Vandegrift &Yavas, 2009). However, the second hypothesis suggests a significant relationship between the presence of female in the board and ROA. Conversely, the multiple regression analysis shows insignificant relationship. Therefore, the hypothesis is rejected. Some of the previous studies reported that the female director-performance relationship is insignificantly related (e.g. Campbell & Munguez-Vera, 2008; Adams & Ferreira, 2009; Carter et al., 2010; Mateos de Cabo et al., 2011).

Regarding the control variables, neither bank size nor leverage is significantly related to ROA. However, the year-period is found to significantly control the relationship in the model of this study. It can be said that the year-period could explain the variation of ROA especially that the period of this study has faced many fluctuations either globally such as global financial crisis or regionally such as Dodi financial crisis (2009) the war in Iraq (2004) and the instability of the political in the neighbouring countries such as in Syria and Iraq.

### 5. DISCUSSION

Few banks are run by female in Jordan. Prasso (1996) stated that males are preferred than females in running the businesses due to perception of the society. In addition, according to Butner and Moore (1997) male CEOs are found to be stronger, more competitive and have wider networking. The underperformance of female CEOs could be explained by the level of experience. Women are found to have relatively less experience than men, resulting in underperformance (Fischer et al., 1993). The case of Jordan seems to be similar; some of the female CEOs are coming from non-business education background. In addition, the female CEOs in Jordan are appointed from outside the bank, as a result, they have less knowledge about their new banks and they might carry the consequences of
former CEOs especially if they serve for short period.
In respect to the female director, 28% of the banks have a female(s) in their boards. However, as they are normally coming from non-business background, they might join the boards to play non-business roles such as social roles. In the Arabic countries, women might join the board as a social prestige and they might not enhance the decision making in their boards. Females may not serve in risky banks (Mateos de Cabo et al., 2011).
Alternatively, this study re-measures the female director based on their proportion rather than their presence. The results show no changes as shown in the second model (Table 4). Females occupy only three percent of the seats in the commercial banks’ boards in Jordan. This might indicate that the female directors in Jordan are considered as token directors. Previous studies considered the women as token directors if they are less than three women in a board (Konrad et al., 2008; Torchia et al., 2011). None of the Jordanian banks has three women in their boards. Generally, if the directors are considered as tokens, they may not be able to compete in today’s market environment (Berube, 2005).
Theoretically, the tokenism phenomenon is based in the social psychological theory (SPT). SPT discusses the dynamics of the groups in the boards. The theory argues that the minorities may face disproportionate influence from the majority individuals during the decision making. Thus few females serving in a board may not be effective in the decision making and thus do not play significant roles in enhancing the performance. According to Campbell and Minguez (2008), gender diversity in the board may cause divergence between the directors in the board and critical thinking. Consequently, the decision making process will become less effective and time-consuming. However, it is important to notice that the SPT assumes two opposing assumptions. That is, the gender diversity may have positive or negative effect on the firm performance (Carter et al., 2010). The positive effects may be caused from different thinking in the boardrooms (Carter et al., 2010) which may encourage the different ideas to rise up. As a result, different perspectives will be taken into consideration during the board meeting to enhance the firm performance. However, the case of the female director in Jordan seems to support the ineffective roles played by the females in the boards. That is, the empirical results of this study show that the female director is insignificantly related to the bank performance.

6. CONCLUSION AND FUTURE WORKS

This study aims to examine the impact of the gender diversity on the bank performance measured by ROA. Two gender diversity are considered in this study namely; female CEO and female director. The results of this study indicate that the female CEOs underperform male CEOs. However, no significant impact is found in the female director-ROA relationship. The underperformance by female CEOs could be caused mainly by the CEO experience as some of the female CEO in Jordan come from non-business education background. On the other side, the insignificant impact of the female director in the board in theorised from SPT. That is, few female serving amongst men might not be influential (Mateos de Cabo et al., 2011). The main implication of this study is that the CEO experience and background should be considered when appointing the CEO or electing the female directors. In addition, banks may go toward appointing more female directors in their boards. It might be argued that more females in the board may feel more comfortable to present their ideas during the meeting. Further studies might go beyond the studying the female director-performance relationship, they might go to investigate the roles of female directors in the board. In addition, diversity in the top management might be considered in the future works.

REFERENCES


