

## Board Characteristics and Corporate Performance: Evidence from Palestine

خصائص مجلس الإدارة وأداء الشركة: أدلة من فلسطين

Islam Abdeljawad\* & Rasha Masri\*\*

إسلام عبد الجواد، ورشا المصري

\*Department of Finance, Faculty of Economics & Social Sciences,  
An-Najah National University, Nablus, Palestine.

\*\*Al- Quds Open University, Nablus, Palestine

\*Corresponding author: islamjawad@najah.edu

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### Abstract

This paper investigated the relationship between board characteristics and corporate performance of firms in Palestine. The degree to which the board is effective in performing its duties and tasks depends on several factors manifested by certain characteristics. Particularly, this research examined the impact of CEO duality, board size, board independence, board gender diversity, board academic background, and frequency of board meetings on the level of corporate performance. The sample encompassed all firms listed in the Palestine Stock Exchange (PSE) with available data for the years 2012 to 2014 with total 141 firm-year observations. The data was manually collected from the audited annual reports downloaded from PSE website. Generalized least square estimators were obtained for the multiple-linear relationship between board characteristics and firm performance. The results indicate that corporate performance of Palestinian listed firms is positively related to board duality, board gender diversity, and number of board meetings. Meanwhile, board size, board independence and board academic background seem to negatively affect performance. The results are

consistent with the stewardship theory where the board plays a supportive role by empowering executives leading to, potentially, higher performance. In this context decisions are executed faster, the ambiguity between the processes and the objectives of the firm is reduced and performance is enhanced. Our results have an implication to any future corporate governance code setting. The stewardship theory not the agency theory should guide the lawmakers in constructing any new legislation related to corporate governance.

**Keywords:** Corporate Governance, Board Characteristics, Palestinian Corporations.

### ملخص

تهدف هذه الدراسة الى اختبار العلاقة بين خصائص مجلس الادارة وبين اداء الشركات في فلسطين، ان كفاءة مجلس الادارة في اداء مهامه تعتمد على العديد من العوامل ومنها خصائص مجلس الادارة، وقد حقق هذا البحث هدفه من خلال اختبار أثر العوامل التالية على أداء الشركة: ازدواجية الدور الذي يمارسه رئيس مجلس الادارة بحيث يكون هو المدير العام ايضا، حجم (عدد اعضاء) مجلس الادارة، استقلالية اعضاء مجلس الادارة، التنوع في مجلس الادارة، الخلفية الاكاديمية لأعضاء مجلس الادارة، وعدد الاجتماعات التي يعقدها المجلس خلال العام، لاختبار العلاقات السابقة تم استخدام بيانات زمنية-مقطعية من سنة 2012 وحتى 2014 لكافة الشركات المدرجة في بورصة فلسطين والتي تتوافر البيانات المطلوبة لها خلال تلك الفترة، كافة البيانات المستخدمة تم الحصول عليها يدويا من التقارير السنوية المدققة للشركات كما هي متوفرة على موقع سوق فلسطين للاوراق المالية، تم تقدير معاملات الانحدار باستخدام طريقة المربعات الصغرى العامة (GLS)، وقد أظهرت النتائج ان أداء الشركات الفلسطينية يتأثر سلبا بحجم مجلس الادارة وباستقلالية أعضائه وبعدد حملة الدكتوراة فيه، ولكن ظهر وجود علاقة موجبة بين ازدواجية دور رئيس مجلس الادارة والمدير العام وبين الأداء، مما يتوافق مع نظرية الاشراف التي تفسر حقيقة انه عندما يكون رئيس مجلس الادارة هو نفسه المدير العام فإن القرارات ستنفذ بشكل اسرع، والغموض في العمليات والاهداف للشركة ستكون اقل، والأداء سيكون افضل، كما اظهرت النتائج علاقة ايجابية قوية بين نسبة النساء في عضوية مجلس الادارة وأداء الشركة، أخيرا فإن عدد الاجتماعات التي يعقدها مجلس الادارة كان له اثر ايجابي ايضا على أداء الشركة، وتتلاءم النتائج بشكل عام مع نظرية الاشراف مما يعني ان اي قانون للحكومة يتم تبنيه في فلسطين يجب ان يأخذ ذلك بعين الاعتبار.

**الكلمات المفتاحية:** حوكمة الشركات، خصائص مجلس الادارة، الشركات الفلسطينية

## Introduction

Corporate governance has been a focus of enormous economic studies. The spreading of global financial crises and scandals has brought to light corporate governance concerns both in developed and developing countries. Regulators, policy makers, financial institutions, investors and other stakeholders became more aware of the firm's need to have strong and sound corporate governance framework which provide a legal platform and guidelines that secure the interests of investors and improve corporate performance (Ponnu, 2008).

Corporate governance practices are therefore intended to suggest solutions to the problems allied with the split-up between ownership and management of the organization. Good corporate governance intends to protect the overall interests of stockholders and supports the level of trust for investors. Weak and unsophisticated corporate governance does not lead merely to corporate underperformance and unattractive investment environment, but also leads to macroeconomic crises (Johnson *et al.*, 2000). The growing importance of corporate governance was pursuit by the integration and deregulation of capital markets, the wave of privatization, the reforming of pension funds and private savings, the takeover waves, and the world-wide corporate scandals (Becht *et al.*, 2002).

Good corporate governance manifests itself in the effectiveness of the board of directors and the management of the corporation. The board of directors is responsible for mitigating self-interest activities as well as reducing losses caused by sub-optimal decisions by executives (Fama & Jensen, 1983; Jensen & Meckling, 1976). The board effectiveness remains hard to understand and define, as there is major debate about the roles and tasks that should be assigned to the board. The board effectiveness dimensions include searching the environment for threats and opportunities provide guidance and feedback to the CEO; and, draw out a network of contacts and sources of knowledge to strengthen firm performance (Lawler *et al.*, 2002). This is a broader definition than the traditional board effectiveness in monitoring and controlling managers. In addition, board responsibilities lie in directing the CEO and top

management on strategic issues, and facilitating the attainment of resources important for the firm's success, as well as mitigating agency costs (Johnson *et al.*, 1996).

The degree to which the board would be effective in performing its duties and tasks depends on several factors, which may be made up of particular board characteristics like board duality, CEO duality, board size, board diversity, and board skills among others (Peng *et al.*, 2007; Daily & Dalton, 1997; Silva *et al.*, 2006; Carter *et al.*, 2003).

Palestine is a small economy but increasingly adopting the concepts of good corporate governance. There is increased interest in promoting corporate governance guidelines by governmental institutions, civil society organizations, and business sectors because of the increased awareness about the importance of governance in creating an attractive investment environment that is able to attract domestic and external investments, therefore, achieving higher rates of economic growth, decreasing unemployment, poverty and external support dependency (Abdelkarim, 2016; Hassan, Naser & Hijazi, 2016).

In spite of the growing awareness of the importance of corporate governance, little empirical research exists to determine the relationship between board characteristics and corporate performance of firms in Palestine with few studies discussed the relationship between governance and performance (Abdelkarim, 2016; Abdelkarim & Alawneh, 2009; Hassan, Naser & Hijazi, 2016). A study of board-performance association in Palestine is crucial to add to our knowledge about this relationship from a unique, small and relatively closed economy of Palestine. What characteristics make one board relatively more effective than other boards? This research was set to answer this question by examining the impact of CEO duality, board size, board independence, board diversity, board skills and frequency of board meetings on the level of corporate performance.

The remaining of this paper is structured as follows. In Section 2, we reviewed the theoretical and empirical literature. In Section 3, we developed the hypotheses. In Section 4, the data and methodology are presented. In Section 5, the results are discussed and Section 6 concluded.

## Literature Review

From a theoretical point of view, corporate governance is often analyzed using agency theory, stewardship theory, resource-dependence theory, and stakeholder theory. In agency theory the goal of the agent is different from that of the principals, and they may conflict (Jensen & Meckling, 1976) hence, board tends to exercise strict control, supervision, and monitoring on the performance of the agent in order to protect the interests of the principals (Hillman & Dalziel, 2003). In stewardship theory, executives of a company are stewards of the owners, and both groups share common goals (Davis, Schoorman & Donaldson, 1997). The board should play a supportive role by empowering executives and, in turn, increase the potential for higher performance (Shen, 2003). Resource-dependence theory argues that a board exists as a provider of resources to executives in order to help them achieve organizational goals (Hillman, Cannella, & Paetzold, 2000). Resource-dependence theory recommends interventions by the board while advocating for strong financial, human, and intangible supports to the executives. Finally, stakeholder theory assumes that shareholders are not the only group with a stake in a firm. Others can be affected by the success or failure of the firm. Therefore, managers have special obligations to ensure that all stakeholders (not just the shareholders) receive a fair return from their stake in the company (Donaldson & Preston, 1995). In this context, the board has a responsibility to be the guardian of the interests of all stakeholders by ensuring that corporate or organizational practices take into account the principles of sustainability for surrounding communities.

Empirical evidence is voluminous but the results are mixed. (Beiner *et al.*, 2006) discussed whether ‘good’ corporate governance has a positive impact on firm valuation of Swiss firms and found supports to the hypothesis of a positive relationship between firm-specific corporate governance index and Tobin’s Q. (Arora & Bodhanwala, 2018) examine the relationship between a corporate governance index and firm performance in India. The study reveals significant positive relationship between governance and firm performance. (Johl, Kaur, & Cooper, 2015) study the relationship between board characteristics and firm performance.

The findings suggest that larger board size, less frequent board meetings and a higher percentage of board members with accounting expertise have a positive implication on firm performance. However, board independence does not affect firm performance according to this study.

Arslan, Karan, and Eksi (2010) analyzed the impact of board structure attributes on accounting and stock market performance of firms in Turkey in both general and crisis periods. They found that duality of CEO and the chairman of the board has no impact on corporate performance in general period although it has negative impact during the crisis period. Moreover, board independence is found to have no effect on accounting performance, yet the stock market perceives board independence positively, both in general and in the crisis periods. Finally, board size has a positive impact, both on the accounting and on the stock market performance of firms, yet the impact reverts to negative during the crisis period.

Mishra and Kapil (2018) explored the relationship of board characteristics and firm performance for Indian companies. Market-based measure (Tobin's Q) and accounting-based measure (return on asset) have been employed for measuring firm performance. Findings indicate that there is significant positive association between board size, board independence, number of board meetings, and separation of CEO and chairman of the board from one side and firm performance from the other. Overburdened directors affect firm performance adversely. Findings also suggest that the governance-performance relationship is also dependent upon the type of performance measures used in the study whether accounting or market measures. Zhou, Owusu-Ansah, and Maggina (2018) investigated whether the characteristics of board of directors and audit committees are associated with firm performance in the Athens Stock Exchange and find that firms having large-sized boards performed better, but firms having more independent board members performed poorly. Moreover, firms with small-sized boards and those with boards having more independent members are more likely to form audit committees, but no association between audit committee characteristics and firm performance. These findings suggest that boards of Greek firms take more active role in advising than monitoring. Petchsakulwong and Jansakul

(2017) investigated the impact of board of directors' characteristics on the profitability ratio of Thai public non-life insurers measured by return on total assets (ROA), return on equity (ROE), and return on net written premiums (RNP). The findings revealed positive relationship between board size and the profitability ratio. On the contrary, board meeting frequency was negatively related with ROA and RNP. In addition, firm size was negatively related with the profitability ratio.

In Palestine, a national committee for corporate governance has issued the first Corporate Governance Code in 2009. Though the code lacks the enforceability, most firms adopted it by the encouragement of the stock exchange and the Capital Market Authority. For banks, the Palestine Monetary Authority has also issued the Corporate Governance Guide for Banks in Palestine in 2014. How these codes affect the performance of firms is largely unknown. Only few papers addressed the relationship between corporate governance and performance in Palestine. Abdelkarim and Alawneh (2009) investigated the relationship between ownership concentration, as a proxy for governance, and firm performance as measured by Tobin's Q on a sample of 16 Palestinian companies from 2003 to 2006 and found that the two variables are negatively related. Abdelkarim and Ijbara (2010) examined the Palestinian non-banking listed-firms compliance to corporate governance using self-administered questionnaire survey. They do not find satisfactory compliance of Palestinian firms with the corporate governance best practices with respect to board composition and independence. They explain this non-compliance by the non-enforceability of the corporate governance code, the outdated companies' law, which is issued in 1963 and to the family ownership dominance over corporations. Abdelkarim (2016) found no relationship between firm performance and the degree of governance compliance using a sample of 28 Palestinian firms listed in 2009. They measure performance by the change in return on investment between year 2008 and the average return of the next 6 years. However, these papers can be criticized on the basis of measurement of variables, estimation methods, and sample size. Hassan *et al.* (2016) explored the relationship between corporate performance and corporate governance at Palestine Exchange

during the period from 2010-2012 using a sample of 30 non-financial firms. Accounting and market performance measures, namely ROA, ROE, and Tobin's Q were used to proxy corporate performance. Corporate governance represented by the board of directors' size, the frequency of the annual meetings of the board, existence of an audit committee, institutional investors' ownership and foreign ownership. They found that corporate governance variables are negatively associated with the financial performance which is in the contrary to the main stream literature.

### **Hypotheses development**

The board effectiveness stays hard to understand and define. Empirical research highlights several factors that determine the degree the board would be effective in performing its duties and tasks. These factors are made up of particular board characteristics like CEO duality, board size, board diversity, board skills, board independence and frequency of board meetings. Following are discussions of these factors.

### **CEO Duality**

The CEO duality can be considered as a control structure that combines the position of board chair and CEO. CEO duality can prevent board's ability to keep track of management and weaken board monitoring effectiveness (Fama & Jensen, 1983), meaning that agency problems are higher when the same person occupies the two positions. According to this view, the separation of board chair and CEO positions can improve firm performance. Whereas the stewardship theory argues that when the same person implements both roles this may improve the firm's performance, as internal and external ambiguity concerning the responsibility for firm objectives and processes may be removed (Finkelstein & D'Alene, 1994). Many empirical studies in emerging and less developed economies found that CEO duality may promote firm performance (Peng *et al.*, 2007). Other studies found no significant difference between firms that separate between board and management and those with CEO duality (Daily & Dalton, 1997). In view of this discussion, the following hypothesis will be articulated.



***H1: There is a positive relationship between CEO duality and firm performance.***

### **Board Size**

The board size is used as an indicator of both advisory and monitoring roles (Klein, 1998). The board size increases with firm size and firm age (Coles *et al.*, 2008). Research on optimal board size led to no definite results. Large board size increases cost, as the coordination, communication, and efficient and effective decision making is costlier and harder, while small board size do not monitor managers effectively and can be directed by CEO.

Many studies investigate the board size effect on performance. Yermack (1996) investigate the association between board size and firm performance measured by Tobin's Q and found significant negative relationship. This research reveals that firms with small board are more capable to use their assets effectively and have higher profits than large board firms. Eisenberg *et al.* (1998) find a similar negative relationship between board size and firm performance as measured by return on assets. We will hypothesize the following

***H2: Board size is negatively related to firm performance.***

### **Board Independence**

The board may comprise executive and non-executive members. The non-executive directors play a vital role in monitoring the actions of the CEO and executive directors to ensure that the shareholders' interests are well cared for and to add to the diversity of skills and expertise of the directors (Weir & Laing, 2001). Consistent with this argument, Awan (2012) found a positive relationship between non-executives and firm performance measured by return on asset (ROA) and return on equity (ROE) in Pakistan. Dehaene, Vuyst, and Ooghe (2001) found similar relationship in Belgian companies which supports the notion that outsiders are able to perform a monitoring function as a result of their independence.

Some studies expect a contrary result. Weir and Liang (2001) argued that non-executive directors are only employed on a part-time basis and

are therefore likely to have other work commitments, may lack the expertise necessary for understanding highly technical business issues and may have insufficient information when required to make key decisions. Some studies found no relationship between independence and performance. A study conducted by Abdullah (2004) in Malaysia found that there is no significant difference in performance between firms with independent boards and firms with non-independent boards. They explain that in many developing countries, the selection of the independent directors is not based on their expertise and qualifications but more for political reasons and personal connections to legitimate business activities and contracts. The latter two arguments are similar to the case of Palestine. Therefore, this study proposes the following hypothesis:

***H3: There is a negative relationship between board independence and firm performance.***

### **Gender Diversity**

Traditionally boards are composed of only male members. The presence of female on board leads to gender diversity. Largely, diversity is expected to enhance organizational value and performance as it provides new perspectives and insights (Carter *et al.*, 2003). The influence of board diversity, mostly gender diversity, on firm performance has been studied widely. Erhardt *et al.* (2003) found that the percentage of women on board positively connected with return on investment and return on assets (ROA). Carter *et al.* (2003) found that the relationship between Tobin's Q and the proportion of women on the board was positive. The impact of female directors on firm performance of selected US firms tends to find that female board members assign more effort to monitoring (Adams & Ferreira, 2009). However, Shrader *et al.* (1997) did not find any significant relationship in a sample of top US firms, between percentage of women on board and financial performance. Bohren and Strom (2005) reported a significant negative relationship between the proportion of women on the board and Tobin's Q of Norwegian firms. Our hypothesis is the following:

***H4: The percentage of women on firm's board is positively related to firm performance.***

#### **Academic background**

Board of directors constitutes an important resource for the corporation. Consequently, higher degree of educational credential like PhD will represent an additional wealth to the firm (Carpenter & Westphal, 2001). Since many PhD holders are from academia, Francis, Hasan and Wu (2015) find that firms with directors from academia are associated with higher performance. In Francis *et al.*, study, the presence of academic directors is associated with higher number of patents and citations, higher stock price informativeness, lower discretionary accruals, lower chief executive officer (CEO) compensation, and higher CEO forced turnover-performance sensitivity. Overall, academic directors are valuable advisors and effective monitors and firms are expected to benefit from having them on board. The hypothesis related to board academic background is the following:

***H5: The percentage of directors with PhD qualifications and firm Performance are positively associated.***

#### **Board Meetings**

Board meetings are an important channel through which directors obtain firm specific information and able to fulfill their monitoring role (Adam & Ferreira, 2009). Francis *et al.* (2012) found that firms with poor board attendance at meetings perform lower than boards which have good attendance during financial crisis. Ntim and Osei (2011) in South Africa found that boards that meet more frequently tend to generate higher financial performance.

On the other hand, some researchers argue that board meetings not necessarily useful since frequent meetings involve managerial time, increase travel expenses, administrative support requirements, and directors' meeting fees. This may affect enterprise activities within the firm as resources are being channeled towards less productive activities (Evans, Evans & Loh, 2002). Our hypothesis is the following:

***H6: The firm performance is expected to be enhanced by more frequent board meetings.***

### **Research methodology**

#### ***Data***

This study examined the impact of board characteristics on firm performance using balanced panel data from Palestinian listed firms. The sample for this research is composed of 141 firm-year observations from all available firms listed in the PSE during the years 2012 to 2014 subject to the availability of data. The data was manually collected from the audited annual reports published on the website of PSE. Table 1 presents the distribution of the data by year and by sector.

**Table (1):** Sample of the study by sector and year

| <b>Sector</b>                         | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>Total</b> |
|---------------------------------------|-------------|-------------|-------------|--------------|
| Banking and Financial Services Sector | 7           | 7           | 7           | 21           |
| Industry Sector                       | 13          | 13          | 13          | 39           |
| Insurance Sector                      | 7           | 7           | 7           | 21           |
| Investment Sector                     | 9           | 9           | 9           | 27           |
| Service Sector                        | 11          | 11          | 11          | 33           |
| <b>Total</b>                          | <b>47</b>   | <b>47</b>   | <b>47</b>   | <b>141</b>   |

#### ***Variables measurement***

The independent variables for this study include CEO duality, board size, board independence, board gender, board academic background, and board meetings. All these variables are theoretically discussed in Section 3. The measurement of these variables is presented in Table 2 along with control and dependent variables which are discussed following.

#### **Corporate Performance**

Accounting performance measurement is used in this research since capital market in Palestine is not developed and tends to be volatile for reasons other than economic performance. Financial measures such as return on equity (ROE), return on asset (ROA) and earning per share (EPS) provide the direct and relevant focus for improving performance, since

measuring and rewarding activities that enhance financial performance is thought to best improve shareholders' wealth. Therefore, this research employs the ROE, EPS and ROA as indicators of management performance. According to agency theory, managers may waste or misspend profits and earnings, and leave less return for shareholders hence lower ROE and EPS while return on asset (ROA) is directly related to management's ability to use assets efficiently.

### **Firm Size**

Large firms have more potential and capacity to generate funds, avoid financial constraints, and provide financing for profitable projects (Majumdar, 1997). We expect a positive relationship between firm size and firm performance.

### **Leverage**

Leverage may proxy for financial distress hence a negative relationship is expected with performance. However, levered firms may have an additional incentive to generate higher level of cash flows to pay interest and principal to creditors hence positively relate to performance. We will use leverage as one of the control variables following Short and Keasey (1999); Abor (2005); and Bhagat and Bolton (2008).

**Table (2):** Measurement of variables.

| <b>Variable</b>   | <b>Abbreviation</b> | <b>Measurement</b>  |
|---|---------------------|---|
| <b>1. Board characteristics (independent variables)</b> |                     |   |
| CEO duality   | Duality             | Dummy variable takes value of 1 if the CEO is a board chair, otherwise 0. |
| Board size  | B Size              | Number of directors on board.   |
| Board independence                                      | Independence        | Percentage of independent directors on board                              |
| Gender diversity  | Gender              | Percentage of women directors on board.                                   |
| Academic Background                                     | Academic            | Percentage of board members with PhD qualification.                       |
| Board meetings  | B Meetings          | Number of board meetings held during the year                             |

... continue table (2)

| Variable  | Abbreviation | Measurement  |
|---|--------------|--|
| <b>2. Firm performance (dependent variable proxies)</b> |              |  |
| Return on Equity  | ROE          | Net income divided by total equity   |
| Return on Assets  | ROA          | Net income divided by total assets.  |
| Earnings per Share                                      | EPS          | Net Income divided by the number of shares outstanding.  |
| <b>3. Control variables</b>                             |              |  |
| Firm size   | F Size       | Logarithm of the firm's total assets in US Dollars (firms data in Jordan Dinar is converted in USD using the official average exchange rate) |
| Firm leverage   | Leverage     | Percentage of total liability to total assets  |

**Model**

The independent variables of this research include CEO duality, board size, board independence, board gender, academic background and board meetings. Moreover, firm size and firm leverage are used as control variables. The dependent variable of performance was proxied by three alternatives ROE, ROA and EPS. Based on our hypotheses, we proposed the following linear model to be estimated.

$$Performance_{it} = B0 + B1 (Duality)_{it} + B2 (B Size)_{it} + B3 (Independence)_{it} + B4 (Gender)_{it} + B5 (Academic)_{it} + B6 (B meetings)_{it} + B7 (F Size)_{it} + B8 (Leverage)_{it} + e_{it}$$

where performance is the dependent variable,  $B_i$ s are the regression coefficients, independent and control variables within brackets are as discussed in Table 2,  $e_{it}$  is the error term and  $i$  and  $t$  subscripts are firm and year indicators. The model has been estimated using Generalized Least Square method (GLS) to account for heteroskedasticity and auto-correlation problems appeared in the diagnostic process.

## Results

### *Descriptive Statistics*

Descriptive analysis for the dependent and independent variables of the research are presented in Table 3. For CEO duality, in 81% of the firms, the CEO and Chairman positions are held by different individuals. Only 19% of the sample firms have a dual leadership structure. The average board size of firms in Palestine is about 9 members ranging from 5 to 15 members. Concerning board independence, the average percentage of independent members is 92%. Most board members do not have any position in the firm.

The average percentage of women board membership is 5% of board size while the median is almost zero. This result is disturbing when compared to the increasing number of women participating on firm boards of other developed and developing economies. Concerning the percentage of PhD holders on board of Palestinian firms, the results indicate that the average number of PhD holders on corporate board is 15 percent of board size. This result is eye-catching considering the competences, capabilities and qualifications of the board. The average number of meetings is about 6 meetings per year. However, the data of this variable is missing for a considerable number of firms. For this reason, we will estimate our models twice, one with board meeting variable and the other without this variable.

The average ROE, ROA and EPS are 1%, 1% and 0.11 Dollars respectively. However, the median which is not affected by extreme values is 2%, 4% and 0.06 Dollars respectively.

**Table (3):** Descriptive statistics for all variables

|              | Mean | Median | Maximum | Minimum | Std. Dev. | Observations |
|--------------|------|--------|---------|---------|-----------|--------------|
| Leverage     | 0.44 | 0.39   | 0.98    | 0.01    | 0.28      | 141          |
| Duality      | 0.19 | 0.00   | 1.00    | 0.00    | 0.39      | 141          |
| B. Meetings  | 5.80 | 6.00   | 12.00   | 1.00    | 1.75      | 111          |
| B. Size      | 8.77 | 9.00   | 15.00   | 5.00    | 2.20      | 141          |
| Independence | 0.92 | 1.00   | 1.00    | 0.22    | 0.12      | 141          |
| Gender       | 0.05 | 0.00   | 0.43    | 0.00    | 0.10      | 141          |
| F. Size      | 7.63 | 7.58   | 9.38    | 6.54    | 0.71      | 141          |
| Academic     | 0.15 | 0.13   | 0.67    | 0.00    | 0.16      | 141          |
| ROA          | 0.01 | 0.02   | 0.26    | -0.32   | 0.08      | 141          |
| EPS          | 0.11 | 0.06   | 1.22    | -0.40   | 0.23      | 141          |
| ROE          | 0.01 | 0.04   | 0.44    | -2.63   | 0.26      | 141          |

**Correlation analysis**

Table 4 represents the correlation matrix between independent variables. Most of the correlation coefficients are relatively small indicating no serious multicollinearity problem existing between independent variables. Firm size has high positive correlations with leverage (54%) and board size (46%). However, these correlations do not indicate multicollinearity problem according to Asteriou and Hall (2007).

**Table (4):** Correlation Matrix between independent variables

|              | Leverage | CEO Duality | B. Meetings | B. Size | Independence | Gender | F. Size | Academic |
|--------------|----------|-------------|-------------|---------|--------------|--------|---------|----------|
| Leverage     | 1.00     |             |             |         |              |        |         |          |
| CEO Duality  | 0.12     | 1.00        |             |         |              |        |         |          |
| B. Meetings  | 0.01     | 0.12        | 1.00        |         |              |        |         |          |
| B. Size      | 0.21     | -0.18       | 0.06        | 1.00    |              |        |         |          |
| Independence | 0.18     | -0.12       | 0.05        | 0.05    | 1.00         |        |         |          |
| Gender       | 0.13     | 0.04        | 0.04        | -0.30   | -0.09        | 1.00   |         |          |
| F. Size      | 0.54     | 0.07        | 0.13        | 0.46    | 0.26         | -0.08  | 1.00    |          |
| Academic     | -0.08    | -0.05       | 0.01        | -0.08   | 0.20         | -0.18  | 0.07    | 1.00     |

**Model Estimation**

This section presents the results of the model estimation. The model is estimated for the three proxies of performance ROE, ROA and EPS



separately. For robustness, two specifications with each performance proxy are considered, one with the board meeting variable and the other without the board meeting variable. Board meetings variable subjects to many missing observations and including it in the regression will result in high loss in information. Of course, the findings of the relationships between variables are more reliable if they are qualitatively equivalent between the two specifications with each dependent variable. Whenever the results of the two specifications are not the same, we consider the model with more observations to be more robust. Table (5) presents the regression results. F-statistics are significant for all models and R-square ranges from 40% to 67%.

CEO duality and ROE are positively related consistent with our hypothesis. The coefficient of the duality variable was positive and significant in promoting the financial performance of firms in Palestine according to Model 1 consistent with stewardship theory and with the findings of many research papers that firms with CEO duality outperform firms that separate the two positions (Peng *et al.*, 2007). Positive relationship between CEO duality and firm performance may be explained by the fact that when the chairman is the same person as the CEO, decisions are executed faster. Moreover, the chairman (CEO) will be more aware of the decisions needed to be taken to improve performance and reducing the ambiguity of the processes and the objectives of the firm. However, the relationship with EPS is negative in Model 4 consistent with the agency theory which posits that the separation of the CEO and the chairman positions will enhance firm performance and monitoring effectiveness. The relationship is insignificant for other models. Overall, the evidence related to CEO duality is not conclusive.

**Table (5):** Estimation results for ROE, EPS and ROA as the dependent variables.

|                   | ROE                  |                      | EPS                  |                      | ROA                  |                      |
|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                   | Model 1              | Model 2              | Model 3              | Model 4              | Model 5              | Model 6              |
| Duality           | 0.028***<br>(2.65)   | -0.002<br>(-0.13)    | 0.020<br>(0.857)     | -0.070***<br>(-2.89) | -0.001<br>(-0.24)    | -0.008<br>(-1.14)    |
| B. Size           | -0.011***<br>(-5.13) | -0.011***<br>(-3.88) | -0.018***<br>(-4.22) | -0.018***<br>(-3.46) | -0.002<br>(-1.44)    | -0.001<br>(-0.37)    |
| Independence      | -0.088**<br>(-2.21)  | -0.097<br>(-1.58)    | -0.172**<br>(-2.10)  | -0.005<br>(-0.06)    | -0.071**<br>(-2.59)  | -0.032<br>(-0.84)    |
| Gender            | 0.232***<br>(4.62)   | 0.538***<br>(6.09)   | 0.118<br>(1.23)      | 0.284**<br>(2.00)    | 0.134***<br>(5.30)   | 0.224***<br>(4.86)   |
| Academic          | -0.069***<br>(-3.00) | -0.045<br>(-1.24)    | -0.187***<br>(-3.59) | -0.397***<br>(-5.77) | -0.039**<br>(-2.51)  | -0.048**<br>(-2.24)  |
| F. SIZE           | 0.131***<br>(10.68)  | 0.134***<br>(7.51)   | 0.157***<br>(7.83)   | 0.171***<br>(7.32)   | 0.043***<br>(6.69)   | 0.041***<br>(5.58)   |
| LEVERAGE          | -0.189***<br>(-6.85) | -0.209***<br>(-4.94) | -0.188***<br>(-3.97) | -0.272***<br>(-4.96) | -0.069***<br>(-5.71) | -0.076***<br>(-4.98) |
| B. MEETINGS       | -<br>(-)             | 0.011*<br>(1.97)     | -<br>(-)             | 0.023***<br>(4.39)   | -<br>(-)             | -0.001<br>(-0.32)    |
| C                 | -0.731***<br>(-7.96) | -0.801***<br>(-5.51) | -0.698***<br>(-5.47) | -1.000***<br>(-6.69) | -0.200***<br>(-4.10) | -0.226***<br>(-4.07) |
| Sample size       | 141                  | 111                  | 141                  | 111                  | 141                  | 111                  |
| R-Square          | 0.67                 | 0.57                 | 0.55                 | 0.60                 | 0.46                 | 0.40                 |
| Adjusted R-Square | 0.66                 | 0.54                 | 0.53                 | 0.57                 | 0.44                 | 0.35                 |
| F-statistic       | 39.04***             | 16.98***             | 23.50***             | 19.18***             | 16.47***             | 8.41***              |

\*\*\*, \*\*, \* indicate significance at 1%, 5%, and 10% respectively. Numbers in parenthesis are t-statistics. Panel EGLS estimation with cross section weights is used for the estimation of the following model

$$Performance_{it} = B0 + B1 (Duality)_{it} + B2 (B Size)_{it} + B3 (Independence)_{it} + B4 (Gender)_{it} + B5(Academic)_{it} + B6(B meetings)_{it} + B7(F Size)_{it} + B8(Leverage)_{it} + e_{it}$$

For board size, the coefficient is negative and significant for all models with ROE and EPS. Large size boards have a negative effect on performance. Large board size seems to increase cost of coordination, communication, and reduces efficiency of decision making. This result is similar to Yermack (1996) and Eisenberg *et al.* (1998) and is consistent with stewardship theory and also resource based theory.

The coefficient of board independence is negative with all performance proxies but becomes insignificant once the regression loses observation as a result of including board meetings variable. External board members may lack knowledge, information, or time for controlling and decision making (Weir & Laing, 2001). Therefore, the involvement of independent directors has a negative effect on performance consistent with stewardship theory.

Surprisingly, a positive and robust relationship between the percentage of women on board and firm performance is found. This result is consistent with the findings of Adams and Ferreira (2009); Carter *et al.* (2003); and Bonn (2004). This result is explained by diversity that enhances organizational value and performance as it provides new perspectives and insights to the firm as expected by the stewardship theory and resource-based theory.

Though we expect a positive relationship between the number of directors with PhD qualification and firm performance, the regression results show a negative effect for this variable on corporate performance for all models though vary with significance. This result is confusing since it is inconsistent with any existing theory. We may explain this result as PhD holders are invited to boards for prestigious reasons and they usually accept this role. The real power remains in the hands of the block stockholders who are mostly family members or group of investors. In this scenario, the existence of PhD holders becomes a burden not an asset for the firm governance and performance.

The effect of the frequency of board meetings is positive indicating the more frequent the board met, the higher the performance of the firm. Board members are likely to obtain more information about the firm and fulfill their monitoring role via the board meetings. This result is similar to Adams and Ferreira (2009); Francis *et al.* (2012); and Ntim and Osei (2011).

Firm size and leverage were used to control the relationship between board characteristics and firm performance. A positive and robust relationship was found between firm size and performance. The positive

relationship with size is consistent with the literature as larger firms are likely to improve corporate performance since economies of scale and scope are more emphasized, and knowledge and experience are enhanced (Majumdar, 1997). The negative and robust relationship found between leverage and firm performance is consistent with the proposition that leverage proxy for financial distress. This result is consistent with the results of Short and Keasey (1999); Abor (2005); and Bhagat and Bolton (2008).

### **Conclusion**

Board of directors is the essential corporate governance tool. Boards are responsible for the corporation they rule. Consequently, corporate governance codes, regulations and recommendations are concentrating on enhancing the board's effectiveness in order to increase corporate governance. In spite of the fact that boards of directors are assumed to be vital for the success and survival of firms, there is still quite little known about the way boards function in the small economy of Palestine. Board characteristics research has been influenced by agency theory, resource dependency theory, stakeholder theory and stewardship theory. This study investigated the effect of board characteristics of Palestinian firms on firm performance using panel data manually collected from the annual reports of all firms listed at the stock exchange from 2012 to 2014.

The results indicate that corporate performance of Palestinian listed firms is negatively related to board size, board independence and board academic background. However, a highly significant positive relationship between performance from one side and gender diversity and frequency of board meetings from the other are found. The relationship between board duality and firm performance is inconclusive but the positive effect is more reliable since it is based on larger sample. The positive relationship is consistent with the fact that when the chairman is the same person as the CEO decisions are executed faster, the ambiguity between the processes and the objectives of the firm is reduced and performance is enhanced.

The overall results are consistent with the stewardship theory. This may result from the ownership structure of firms in Palestine. Block

stockholders in Palestine are usually group of investors or family members who assign one of the family or the group as a CEO and support him to achieve the goals of the family or the group. The role of board is supporting rather than controlling the executives in this framework.

This finding implies that in any future governance code, the stewardship theory not the agency theory should guide the lawmakers or legislators. Code governance in Palestine should not discourage CEO duality. On the other hand, the code should encourage smaller board size, gender diversity and more frequent board meetings. Board independence and academic background should be dealt with carefully. Governance code and policies should establish a real independence instead of existing face independence (i.e. governance code may call for cumulative voting to reduce the power of block stockholders). In this case independent members, whether academic or not, will have the power to control and supervise.

Finally, the positive and highly significant relationship between percentage of female on board and performance is an interesting result and needs further research to determine the reasons behind it in the Palestinian environment. Whether diversity of expertise is the reason or there are other reasons is an open question left for future research.

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