




# Impact of Board Characteristics on the Corporate Dividends Payout: Evidence from Palestinian Stock Market

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**Abstract.** This research aims to examine the impact of board characteristics on dividends payout policy of companies listed on the Palestine Stock Exchange during the period 2013 to 2019 with a total number of 311 firm-year observations. Governance attributes included in this study are gender existence, board size, CEO duality, independence director, and institutional investors. The study uses dividend per share as dependent variable. A robust least square regression model used to evaluate the empirical model in the current study using panel data analysis. Data was gathered from the (PEX) website as well as the annual reports of the companies sampled. The research found that at the 5% level of confidence, there is a positive significant relationship between board size, gender participation, and dividend per share. Furthermore, at the 5% level, there is a significant positive relationship between firm size, profitability, audit firm, and DPS. Firm leverage, on the other hand, has a negative impact on the DPS at the 1% level of confidence. The research's main contribution in focuses data analysis on the final result of firms operations which is the core concern of investment decisions, it may also assist legislative and official institutions in this field in making their best efforts to establish governance codes in the manner that society wishes.

**Keywords:** Corporate governance · Board characteristics · Dividends · Payout policy · Board size · Board independence

## 1 Introduction

Palestinian economy consists of many kinds of projects, such as individual projects, partnerships, limited privacy companies and limited public companies. The public sharing companies have a material part of Palestinian resources, which allow to concentrate searching efforts to improve this kind of projects in all respects in which enhancing investors' confidence, as well as expanding this kind of firms instead of investing large number of resources in banks, in which reflecting on high returns, more resources and more investments as part of sustainable development. From this point of view, there is a need to do more and more care to the public held sharing firms, this caring supposed to contain all respects of these firms and the various environmental effects like

law, governance, and social environment. The Companies Law No. (12) Of 1964 and its subsequent amendments were designed to give the right of managing companies to the majority of its shareholders [36]. The Palestinian Companies Law of 2008 reaffirmed the determination of a shareholder's number of shares in a company that allows him to compete for membership in the Board of Directors to be more than 10% of total firms share, or as the company's internal system indicate, this system prepared by a committee of the company's founders, who normally own the majority of shares. As the result of corporate performance for the majority of investors are the dividends, this study is conducted to examine the impact of board characteristics on dividends pay-out, in companies listed on the Palestine stock exchange. According to the Companies Law of 2008, (Article No. 216), the public shareholding company may not distribute returns to its shareholders except from its net profits realized after settling its retained losses from previous years [36]. The company must deduct 10% of its net profits to the compulsory reserve account, and it is not permissible to distribute any profits before this deduction is made. According to the agency theory and the conflict between management (agent) and shareholders (principal) interests, the goal of board of directors is controlling on CEOs performance which is supposed to achieve shareholders' interests in the first place by maximizing firm value which is reflected in more profits, more cash and more dividends. Some studies have confirmed the existence of relationships between boards characteristics and firm's performance by multi-indicators to measure. Researchers like [1] assures that there is a negative significant relationship between Institutional Investors, audit firm, and independent director and dividend per share (DPS) on one side. On the other side assuring that board of director size and firm profitability positively affect the DPS. Furthermore, Duality of CEO and chairman position, director nationality, firm size and financial leverage were found to have no impact on DPS, [1]. On the other hand, some studies like Chen, and his partners assure that firms with relatively high institutional ownership, and those with strong boards, consistent with new CEOs receiving higher pay as compensation for greater dividend pressure, [2]. As these studies and many others, referred to later on in this research, emphasis on the relationship between these factors, and as the overall objective of firms is to maximize their owner's wealth through maximizing total profits and return on equity, there is a need to search the issue of the relationship between board characteristics and dividends pay out. Since the concepts of the board characteristics in the companies are multiple and varied in measure, the researchers notes that reviewed studies handled different variables such as size, institutional investors, and directors independently, [1]. Accordingly, this study considered the impact of these variables on the firm's dividends pay-out (DPS) of companies listed on the Palestine Exchange commission, in other words, the aim of this study is to examine any impact of board's characteristics on dividends pay-out (DPS) as represented by dividends per share of listed companies in Palestine during the period of 2013 to 2019. The concern is focused on analyzing the listed firm's operation results as they represent the core concern of investment decisions and assist legislative and official institutions in this field in making their best efforts to establish governance codes in the manner that reveals the society's best interest.

## 2 Literature, Theoretical Framework and Developing Hypotheses

According to the agency theory, there is a conflict of interests between shareholders and managers. Since the managers works to get goals may not necessarily the same goals of best interest of shareholders, and even sometimes opposed them, it was the duty of the Board of Directors to exercise control over the work of the management and formation of committees that assisting in achieving its role. Being a board member means being able to influence managerial decisions, and accordingly are deemed the core of related parties as to FASB standard No. 57. Therefore, it is necessary to examine the impact of the characteristics of the board of directors in public shareholding companies on the real financial performance of these companies, which is the actual performance that investors notice directly through annual dividends. The study found that the recent attempts to legalize the Palestinian economy focused on the formation and building of effective boards of directors supported by practical committees, each of which was characterized by conditions and characteristics to achieve a sufficient level of transparency and integrity as well as building public and investor confidence in the Palestinian economic environment. The main objective of CCG code of 2009 is to improve the quality of board practices, competitiveness, firm value, stakeholder's confidence and more. These results are supposed to be achieved by the end performance of the firms as measured by a variety of standards and ratios, such as dividends per share declared by the firms which is the main factor that affects investment decisions. The main concern of CCG of 2009 is about the style of managing and controlling of corporate, and the abilities of board of directors to set policies, strategies and objectives that agree with shareholders' and stakeholders. The aggrieved shareholder has the right to sue the chairman and members of the board of directors for every violation they commit against laws, regulations, instructions, or the company's system [37]. CCG of 2009 recommends the existence of two independent members of the Board. This may lead to the existence of Boards with no independent member. An independent member means a member of the board of directors who does not have any relationship with the company other than his membership in the board of directors. Some researchers assure the impact of board characteristics on firms' performance and what effect these characteristics have, such as the talking about negative significant impact between, institutional investors, and audit firm on dividend per share (DPS), and a negative significant impact of independent board directors on DPS. On the other hand, the size of the board of directors and firm profitability positively affect the DPS. By examining the impact of Duality of CEO and chairman position, the director's nationality, firm size and financial leverage on DPS, it was found that there is an impact on DPS in industrial corporations in Amman stock exchange, [1]. assured that Board size, executive director, institutional investors, foreign ownership and return on equity have significant influence on dividend payout decision in Pakistani firms [3]. This means that the issue of board characteristics in any firm in the world may play a positive or negative impact with respect to agency theory. This means that the factors do not have impact in specific political, economic or social circumstances may have notable impact in others.

It was also found that Board structure has little impact on the performance of a small firm, in a sample of Finnish small to medium-sized enterprise, [4]. This implies a probability of large impact existence of board characteristics in case of large firms. Board

characteristics have shown a significant positive relationship with dividend payout in Kenya and Ghana, while corporate governance measure show significant negative impact on dividend payout in Nigeria, [5]. In this context, one may say that any indicator or component of the board of directors' characteristics may have positive or negative impact with respect to the geographical region, or political system, e.g., it was noticed that there is a significant difference between the board characteristics in local -owned banks and that of foreign-owned ones in Tanzania. And it was also noticed that there is a similar difference in the profitability of these banks, [6]. This implies that foreign experience has a role in building firms' performance. Board characteristics have a positive impact on both a firm's propensity to pay dividends and the level of payouts in firms with CEO duality. On the other hand, it has a negative association in firms without CEO duality in Bloomberg professional services, [7]. Note here the duality of CEO converse the impact of board characteristics on dividends' intent and level, which means that CEO duality must be taken into account while searching these relationships. There is no significant relationship between performance and board characteristics represented by independence, gender, average tenure, and foreign directors in Indian banking sector, [8]. In other words, it was found that there is no impact of board characteristics on DPS. So, more and more indicators have to be taken into consideration through the completion of this study, as the same factors may have more than one result considering industry, geography, law and politics. There is an insignificant impact of board characteristics on operational performance in restaurant industry through Panel regression analysis. Whereas there is a significant positive relationship between board size and all measures of export performance, but not the position of inside director professional representation nor all measures of export performance of firms, using data from 221 exporting firms in turkey [9].

Board gender characteristic significantly increases the dividend payout when weak governance exists, suggesting that female directors use dividend payouts as a governance device, [2]. This suggestion assures the positive impact of women existence in the board on one side, and on the other side, it assures that in case of weak governance the impact will increase at a high rate [10], found that board gender diversity has a negative relationship to cash dividend payments in all emerging economies; State-ownership positively moderates the relationship between gender diversity and dividend payments [11]. Negative link between board gender diversity and dividend payments is more pronounced during the financial crisis, but the moderate role of state-ownership did not work significantly during the financial crisis, [11]. This means that the economic circumstances may moderate the impact of board gender. On the other hand, some studies found that there is no relationship diversity of family directors and Spanish family firm's performance, [12, 13]. Furthermore, some researchers assured that boards with women were associated with high profitability, [6]. Board gender positively impacts both a firm's propensity to pay dividends and the level of payouts, [7]. According to this finding, this variable deserves to be considered in this study as an independent variable. It could be argued that board characteristics indicators play an important role on performance of the firms; they may affect directly or indirectly dividends pay-out by the firm, [2]. That means board characteristics have a very important role in increasing shareholders wealth in general.

Precisely gender in the board is found to have a positive relationship with performance and dividends, [13]. So, the first hypothesis of this study is:

**Hypothesis 1:** The board gender affects positively Dividend pay-out in companies listed on Palestine Exchange.

The profitability indicator related to the dividends pay-out, because it's hard to see loser firms make dividends to shareholders, because of the suggestion which says that the size of board of director and firm profitability positively affects the DPS in Jordan, [1], which means even more members in the board may do more professional discussion lead to more correct decisions which lead to more good performance, more dividends at the end. Board size exhibits significant positive relationship with dividend payout in Kenya and Ghana, [5]. This assures the importance of studying the effect of board size on the DPS in Palestinian firms. [14].

On the second side, the informativeness of annual accounting earnings are not related to board size in the Greek capital market, [15]. This suggestion said that information content in annual report is not affected by the increase in board size, which implies that a probability of earnings management still exists even though the board size is large, which might be the result of poor performance. In other words, some firms may disclose large board size, high profits through periods and no dividends actually. So, this study may find a negative relationship between board size and dividends pay-out at the end. And upon these arguments, the researchers will take board size as significant independent variable in Palestinian economic case.

The same argument was seen in searching about board size. If somebody looked at various results and suggestion of the prior research, may conclude some ideas about the effect of board size on the DPS. Where many researchers assure positive relationship to the dividends, [15], say that board size does not reduce agency likelihood to make better performance which is reflected in dividends at the end. Whereas [14], argue that large and diverse board of directors contributes positively to the performance [6], and [1], found that board size positively has impact on (DPS) in Jordanian listed firms, and this economy is near to our economy by culture, education, and religion [1]. So, the second hypothesis of this study is:

**Hypothesis 2:** Board size affects positively Dividend's pay-out in Companies listed on Palestine Exchange.

Accordance to CCG of (2009), it is preferable for the board not to issue any general mandate to anyone, but in case that is required, the mandate must be specific in subject, duration and time of presenting the results to the board. It is also recommended that the chairman of the board or any other member do not exercise executive duties in the company. Duality of CEO and chairman position, director nationality, firm size and financial leverage were found to have no impact on DPS at the 5% level of confidence in Jordanian listed companies, [1]. Some researchers suggest same dividends decision with respect to duality of CEO and chairman position. Other researchers assure that there is a positive impact of CEO duality on Spanish family firms, [13]. Thus, there is another suggestion which assures the positive impact of these variables like that which indicates a positive association between board characteristics represented by independency,

experience, average tenure, CEO duality, etc. and dividend pay-out as made by [7]. The separation of chairman of board of directors and CEO positions has a significant positive impact on export performance [9]. Here, the researchers do not examine the relationship between CEO duality and dividends pay-out, but they found negative impact on export performance which is part of all performance. And as it is known, the dividends decision come as a result of good performance containing stability situations; the probability of negative relationship with dividends still exists. In the same way, lots of arguments argue about CEO duality. These suggestions are a sample of many findings, researcher had reached, which helped to conclude hypotheses about the effect of CEO duality on DPS. Upon these different results, it might be argued that it is nearly difficult to expect the impact of CEO duality on Palestinian economic level. Because external CEOs have more desire to do more actions to save their jobs, they may make dividends and finance the new projects at a less cost as indicates [16]. Accordingly, the third hypothesis in this study is:

**Hypothesis 3:** CEO duality affects negatively Dividend's pay-out in companies listed on Palestine Exchange.

Accordance to CCG of (2009), the members of the board shall form a remuneration committee, including at least one of its independent members. And the board comprises a corporate governance committee of its members, which consists of the chairman and two part-time members working for the company. There is a negative significant impact between independent director and DPS at the 5% significance level in Jordanian listed firms, [1]. This means that independent director's existence in the board may reduce dividends pay-out. In the same way some researchers assure that greater board independence does not have a positive influence on firm value, [17]. This means that the independent directors may exist increasingly in non-profitable firms and as the relationship between profitability and DPS is positive, there is a probability of a negative relationship between independent directors and DPS.

On the contrary Muller (2014), suggests that the board independence in the total number of directors has a significant positive impact on firm performance [18]. This explains, in the researchers' opinion, why CCG of (2009) demanded the existence of independent directors in some committees like audit committee, CCG of (2009).

In the same way, one could build his hypotheses upon prior research findings which argue for a negative effect of independent directors on Deserter than the suggestion of positive relationships between these two variables, and because of multi similarities between Jordan and Palestinian economy, the fourth hypothesis in this study is:

**Hypothesis 4:** Independent Directors negatively affect Dividend's pay-out in Companies listed on Palestine Exchange.

In accordance to the CCG of (2009), it is recommended that members of the board of directors have leadership qualities, as well as members who enjoy various experiences and skills commensurate with the nature of the company's work, and in a manner that ensures that the board performs its tasks with objectivity and high efficiency. On the contrary, [1], there is a negative significant relationship between Institutional investors and audit firm on the (DPS). This implies that institutional investors may not desire



achieving dividends, since the intent of their investment has different goals, so they reject the dividends decision, [19].

Whereas, in conformity with the CCG of 2009, some researchers assured that Directors from financial institutions can provide monitoring benefits, [17], which means that the firms which have an institutional investor may get free monitoring benefits in order to maintain high financial performance and ratios as well as DPS. Directors from financial intermediaries reduce earning management, and the board representation of active institutional shareholders reduces it further, [20]. This means that an actual and faithful disclosure has to be gotten in this case. Here someone may say that the final performance may be good and there is no need to do earning management, because of the suggestion which indicated that Institutional ownership positively influences dividend payout among South African and Kenyan firms, [5].

Another rational reasoning may appear about institutional investors in which suggest that the main reason of investing in this case is the style of financial management which may not allow high level of liquidity. Upon this suggestion some institutional investor may vote to retain the earnings or reinvest the extra cash in the firm, instead of dividing these earnings. Because receiving dividends may rise the liquidity and it must look for other investment opportunity. So, the fifth and last hypothesis in this study is:

**Hypothesis 5:** Institutional Investors in the board negatively affect dividend pay-out in companies listed on Palestine Exchange.

### 3 Control Variables

Accordance to the CCG of (2009) when forming a council, it is desirable to include new members from the council, in order to inject more experiences. By studying board directorship, CEOs characteristics, and firm's performance in Palestine, the empirical research indicates that CEO tenure, experience and political connections have a positive effect on firm's performance, [21]. Other indications assure that not all of the outside directors are equally effective in improving firm reputation, and that certain kinds of outside directors, especially business experts, help increase it, [22]. This means that ordinarily outside investors who got board membership may not do any effective change to the firm's performance, except those who have special experience. The informativeness of annual accounting earnings is positively related to the number of outside directors serving on the board, firms with a higher proportion of outside directors' report earnings of higher quality compared to firms with a low proportion of outside directors, [15]. That is; with outside directors in the board, good, faithful representation in the annual reports, and probably low level of earning management are expected. But this does not necessarily mean better performance or more dividends. Monitoring of abnormal accruals by outside directors as a whole, or by directors from financial institutions, is not more effective after the issuance of the Toronto Exchange's corporate governance guidelines of 1994, [20]. Here the researchers indicate that there is no positive impact of outside directors in decreasing earnings management in the case of Toronto Exchange corporate governance. This implies that the positive role of outside directors is supposed to be normal, but the problem may be in legislations. The proportion of foreign directors

in the total number of directors, as a characteristic of corporate board characteristics, has a significant positive impact on firm performance [18], which means that the existence of outside directors in the board will enhance the corporate performance, that may be reflected on dividends pay-out. This explains why some researchers take this factor as a variable in studying such relationships. The impact of outside boards on performance is negative in Spanish family firms, except when this comes from CEO duality, [13]. In other words, this may interpret these results by saying that the impact comes from CEO position in some cases, so the positive effect of outside directors is linked to CEO duality, which means that the goal may be achieved if the CEO is one of the members. There is a positive correlation between the board characteristics of high-growth option companies and the value of the company; and this relationship is maintained when more precise actions are taken. That may be reflected in the characteristics of the external directors such as the level of ownership of shares due to the external directors, and the number of other positions on the board occupied by external board members, [23]. This result indicates that the proportion of outside directors have a positive impact on firm value, so high performance is also reflected positively on dividends pay-outs. On the contrary [14] argue that firms with outside board members have lower growth rates and are less profitable [4]. Here the researchers indicate that the impact of outside directors is negative, but do not assure that low profitability and growth is the reason for outside existence. A higher proportion of outside board members decrease market-based performance, [24]. Another performance indicator has a negative impact of outside directors' existence. A large existence of outside directors on the board is negatively associated with export performance, [9]. The same about market indicators, as part of all firm performance. It is concluded that while some researchers found a positive impact on performance, others found negative impact. For this reason, this variable is taken as a control variable in this study. Earnings management does not decrease with the average tenure of outside directors as board members of the firm, [20]. This means that an average tenure will not reduce earnings management. On the contrary, tenure of outside directors is positively related to firm value, [23]. In other words, an average tenure has a positive impact on firm's performance, so this variable is taken as a control one in this study. Board characteristics, in terms of age and educational background of members influences economic performance, since graduate and senior directors exercise a negative influence on profitability, [25]. As tenure comes to reach a better position and to achieve this objective, education will be a material standard the researchers here talked about the impact of this variable.

Managers in weakly-governed firms are more likely to initiate customized dividends to meet outside large shareholders' needs while simultaneously using costly external capital to finance new investment projects, [16]. The indication of this is that probability of dividends pay-out does not come from better performance such as more net income and more liquidity position of the firms, but may come from management intent to obtain shareholders confidence by any way, in order to achieve personal interests. Individualistic CEOs are more likely to pay dividends, [26]. This is why it is explained earlier in the study that its objective is to examine board characteristics indicators on dividends pay-out, and not to test this impact on all firm performance indicators. There is a positive association between social capital and dividends, and this association is stronger for firms



with weak governance, [27]. The same discussion, some researchers say that there is no impact of average tenure on earnings management. Others say that there is a positive impact of average tenure on firm value. As these indicators are closely related to the performance and DPS is one indicator of firm's performance. The study will take this indicator as control variable. The researchers will not examine the impact of outside directors, because it is not a phenomenon in Palestine, but this factor will be taken as control variable in this study, as many researchers indicate its effect.

## 4 Methodology

### 4.1 Sample

To achieve the objective of the current study, our sample consists of financial and governance data collected for seven years from 2013 to 2019. This sample period covers most policy development related to governance practices in Palestine. Also, the year 2013 was selected because at the time of data collection, the 2013's annual reports were the oldest reports, which were still available for most firms. The sample consists of 43 companies listed on Palestinian stock exchange market. In our study, we use data from the selected annual reports (Arabic or English version) which are available on their websites, resulting in 311 observations. However, firms with missing data have been also excluded. Additionally, we have excluded companies with unavailable annual reports, either in Arabic or English version.

### 4.2 Measurements

This section concerns both dependent and independent explanatory variables in the proposed model. Our study investigates both the propensity for a firm to pay dividends and the dividend payout ratio. Following previous studies [1, 28], we also explore the impact of governance attributes on the dividend payout ratio by using the dividend payout ratio. This ratio is measured by dividends per share (DPS) which is dividends payout divided by the number of shares outstanding. We collect the information about dividend policy from the annual reports. As far as the explanatory variables are concerned, Table 1 presents the independent variables that are recommended to explain the extent of dividend payout policy. The data were manually collected from firms' annual reports and websites. To test the hypothesis, the researcher used robust least square regression estimation. A multiple linear regression model attempts to investigate the interrelationship between explanatory variables and the dividend payout:

$$DPS_t = \alpha_0 + \alpha_1 BODSIZE_{it} + \alpha_2 BODIND_{it} + \alpha_3 INSIN_{it} + \alpha_4 CEODUL_{it} + \alpha_5 BODNAT_{it} + \alpha_6 FSIZE_{it} \\ + \alpha_7 FLEV_{it} + \alpha_8 PROF_{it} + \alpha_9 AUD_{it} + \alpha_{10} GENDER_{it} + \alpha_{11} FAMMAN_{it} + \alpha_{12} AVTEN_{it} + \varepsilon$$

where

DPS: Dividends per Share for year t. (as amount).

Which  $DPS = \text{dividends pay out for year} / \text{number of shares outstanding}$ .

BODSIZE: Board size for year t.

BODIND: Percentage of non-executive directors for year t.  
 INSIN: Institutional investors for year t.  
 CEODUL: Duality of CEO and chairman position for year t.  
 BODNAT: Board Nationality for year t.  
 FSIZE: Firm Size for year t.  
 PROF: Firm Profitability for year t.  
 FLEV: Firm's financial leverage for year t.  
 AUD: Audit firm for year t.  
 GENDER: Gender ratio for year t.  
 FAMMAN: Management of family for year t.  
 AVTEN: Tenure of chairman for year t.  
 $\alpha$  0: Intercept.  
 $\alpha$  1–9: Variable's coefficients.  
 e: Error term.  
 t: Represents the time (year).

**Table 1.** Summary of the explanatory variables

Variable	Symbol	Definition	Reference
Board size	BODSIZE	The number of directors in the board	(Aloudat et al. 2019)
	BODIND	Percentage of independent directors in the board	(Aloudat et al. 2019)
	INSIN	Percentage of institution members in the board	(Abor and Fiador 2013)
	CEODUL	1 if CEO is one of the board members, 0 otherwise	(Suarez and Santana 2015)
	BODNAT	Percentage of non-Palestinian members	(Suarez and Santana 2015)
	FSIZE	Natural logarithm of total assets	(Aloudat et al. 2019)
	PROF	Return on total assets	(Hazaea et al. 2021)
	FLEV	Ratio of total debt	(Khatib and Nour 2021)
	AUD	1 if the auditor is one of the big four, 0 otherwise	(Aloudat et al. 2019)
	GENDER	Percentage of women in the board	(Chen et al. 2017)
	FAMMAN	By 1 if family firm, 0 otherwise	(Muller 2014)
	AVTEN	1 if the chairman was changed, 0 otherwise	(Orr et al. 2005)

## 5 Result and Discussion

### 5.1 Descriptive Statistics

The descriptive statistics analysis for all study variables including dependent, independent and control variables are presented in Table 2. The descriptive analysis includes the mean, standard deviation, maximum value, and minimum value for all variables.

**Table 2.** Descriptive statistics analysis

	Mean	Median	ST.DEV	Max	Min	Obs.
DPS	0.102	0.05	0.172	1	0	311
ROA	0.03	0.021	0.07	0.27	-0.62	311
LN total assets	17.73	17.59	1.81	22.38	13.70	311
Leverage	0.20	0.11	0.21	0.83	0.02	311
BIG 4	0.77	1	0.42	1	0	311
Gender	0.06	0.00	0.10	0.50	0	311
Bsize	8.92	9.00	2.17	15.00	4.00	311
CEOdual	0.32	0.00	0.47	1	0	311
INDDR	0.31	0.286	0.13	1	0.08	311
INSINVES	0.58	0.57	0.32	1	0	311
OUTSD	0.27	0.273	0.22	1	0	311
AVER TEN	0.12	0.00	0.33	1	0	311
FAM MANAG	0.34	0.00	0.48	1	0	311

Sample size (n) = 311 firm year observations from the period (2013–2019) as available data on Palestine stock exchange listed companies.

The Table 2 above provide some useful information about the variables, as follows:

Dividends per Share (DPS) has a mean of (0.1), with a standard deviation of (0.17), while the minimum value reaches (0) and the maximum value reaches (1).

The mean of gender existence variable is about (0.06) with a standard deviation of (0.1). On the other hand, the maximum value reaches (0.5) and minimum value reaches (0). This finding indicates most firms of the study sample don't have notable female existing factor resulting from small ratio of holding shares outstanding by female in our society, which may happen as a result of cultural factors. Board size variable mean is about (8.92) members with a standard deviation of (2.17) members, while the maximum value reaches (15) members, and the minimum value reaches (4) members. This finding includes most of the sample firms comply with corporate governance code which state that the board must consist of seven members at least. Independent director's variable mean is about (2.6) board members, with a standard deviation of (1.1) members, while the minimum value is (1) members and the maximum value is (7) members, whereas independent director's ratio statistics are (0.31), (0.13), (1), and (0.08) respectively.

This result indicates that most of the sample companies achieve the lowest level of governance code rules, which state that board, must contain at least two independent members especially in audit committee. Institutional investor's ratio in board statistics appear in the Tables 2, 3 and 4 which has a mean of about (58%) members of all board members, with standard deviation (32%) members, while the maximum value was (100%) members and the minimum value (0%) members. This means that most firms of the sample study were held in a large portion of its shares outstanding by the private or public institutions, more than the individual investors. According to the model of the study, dummy variables exist. Table 3 below shows the descriptive information about it.

**Table 3.** Description about dummy variables

Variable	Type	Frequencies	Percentage
Audit firm	Big four	239	76.85%
	Local	72	23.15%
CEO duality	Duality	101	32.48%
	No	210	67.52%
Average tenure	Tenure	38	12.22%
	Does not	273	87.78%
Family management	Family	107	34.41%
	Not	204	65.59%

Table 3 shows that nearly a third (32%) of CEO was dual to chairman or at least a member in the board of directors.

(77%) of firms in the sample was audited by big accounting firm, while just (23%) was audited by local auditors. But there are 88% of chairmen did not tenure through seven years, which indicates that most firms of sample may not comply with governance code in holding board elections each four years, or the elections were held in the event of a capital market recession, so the equity doesn't move. The last variable, family management, shows that 34% of the firms of the sample were held by families. This also gives evidence that capital market is actually has low activity.

## 6 Correlation Matrix

According to [1], if the correlation between independent variables is greater than 0.80 or 0.75 for any of them, you have a multicollinearity problem [1, 35]. In the model of this research, such an approach was used to discover multicollinearity problems: Pearson Correlation Calculator (correlation matrix).

Table 4 below demonstrates the Pearson correlation between the variables. In the correlation matrix, all of the correlation coefficients among the independent variables are less than 0.80, multicollinearity isn't a problem.

**Table 4.** Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
DPS (1)	1.00												
ROA (2)	0.43	1.00											
LN TA (3)	0.17	0.09	1.00										
LEV (4)	-0.12	-0.16	0.58	1.00									
AUF (5)	-0.03	-0.09	0.41	0.30	1.00								
GEN (6)	0.02	0.12	-0.13	-0.06	-0.28	1.00							
BS (7)	-0.03	-0.05	0.50	0.24	0.13	-0.20	1.00						
DUA (8)	0.23	0.17	0.09	-0.29	-0.11	-0.15	0.04	1.00					
IND (9)	-0.13	-0.12	-0.07	-0.01	0.23	-0.16	-0.32	-0.20	1.00				
INS (10)	-0.16	-0.23	-0.04	0.12	0.37	-0.32	-0.03	-0.25	0.34	1.00			
OUTS (11)	0.02	-0.15	0.35	0.13	0.27	-0.20	0.03	0.45	0.12	0.04	1.00		
TENU (12)	-0.08	-0.06	-0.16	-0.10	-0.05	0.01	-0.11	-0.13	0.11	0.08	-0.15	1	
FM (13)	0.09	0.24	-0.25	-0.38	-0.37	0.31	-0.31	0.34	-0.13	-0.64	0.00	-0.02	1

Which: LNTA: firm size, LEV: leverage, AUF: audit firm, GEN: gender ratio, BS: board size, AUA: CEO duality, IND: independent directors, INS: institutional investors, TENU: average tenure, FM: family management.

Heteroscedasticity is referred to as a breach of homoscedasticity in this sense. The above condition has the effect of underestimating the coefficient estimate and, in some cases, making irrelevant variables seem important [29]. The homoscedasticity and independence of error terms were investigated in this analysis using the Likelihood Ratio test; the probability of residuals in the heteroscedasticity test using this approach should be less than 5% level of significance. The test of heteroscedasticity is shown in Table 5 below, and it indicates that there is no problem with heteroscedasticity, where the probability is less than 5%.

**Table 5.** Heteroscedasticity test

	Value	DF	Probability
Likelihood ratio	4277.5	46	0

The Durbin-Watson assay was used to support autocorrelation. The null hypothesis states that there is no autocorrelation in the regression analysis' residual values [38]. The Durbin-Watson statistic has a range of values between 0 and 4. Non-autocorrelation is indicated by a value near 2, positive autocorrelation by a value near 0, and negative autocorrelation by a value near 4. The test value in this analysis, as shown in Table 5, 0.42, is very close to zero, and the minimum value in the case of 12K, as shown in the Durbin-Watson parameter tables, is 1.86. The null hypothesis of non-autocorrelated errors is dismissed in favor of the hypothesis of positive first-order autocorrelation because the observed value of the test statistics is less than the tabulated lower bound.

**Table 6.** Durbin Watson test

Durbin-Watson stat	0.427156	Prob (f-Static)	0
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Impact transmission is a significant source of autocorrelation, at least partly. The effect of deleting certain variables is a source of autocorrelation [30]. These reasons and others may produce a biased results by the study model. Because of the above reason, researchers used the Robust test, method of (S estimation), in order to avoid an impact of outlier's values in testing hypotheses as did [31, 38, 39].

## 7 Regression Analysis

In order to test the hypotheses of the study, a robust least square analysis was required to be done through S-estimation method. Let's see Table 7 below: Table 6 shows that panel data analysis through robust – least square method, S estimation, so these study findings were robust.

Table 7 shows that at the 5% significance level, there is a positive significant impact between independent variable gender existence in the board and DPS value (Z statistic = +2.502, probability = 0.012). This means that as the gender in the board increases, the DPS increases as well. So, the researcher reaches to accept hypotheses number one which indicates that gender existence affects positively the dividends pay-out ratio in the companies listed on PEX. This indication agrees with Chen et al. (2017) who says that firms with a higher proportion of female directors on their boards have higher dividend payouts, and where there is poor governance, the dividend payout rises dramatically [2], implying that female directors use dividend payouts as a governance tool. By this suggestion, the researcher can conclude that gender absence in the board of directors affect negatively DPS, which may lead legislation bodies in this field to increase the portion of women in the board as much as possible.

Table (4.7) also shows that at the 5% significance level, there is a positive significant impact between independent board size and DPS value (Z statistic = +2.178, Probability = 0.029). This finding shows that as board size increases, DPS increases as well. So, researcher will accept hypotheses number two which indicates that board size affects positively DPS in the companies listed on PEX. This indication agrees with [1], who says that size of the board of directors and the performance of the company has a positive impact on the DPS [1]. This finding suggests that a little number of board members would not lead to more DPS, so this may urge government institutions to raise the number of board members.

As shown in Table 6, there is also no significant relationship between the variable of CEO duality and DPS at the 5% level, because (Z statistic = -0.922, probability = 0.356), which means that hypotheses number three must be rejected. This indicates that CEO duality affect negatively DPS in the companies listed on PEX. This indication agrees with Aloudat et al. (2019), who indicates that dual CEO and chairman positions, as well as director nationality, have no effect on DPS at the 5% confidence rate [1]. Independent directors also do not affect DPS value (Z statistic = -1.432, Probability = 0.152) at the



5% significance level value. This means that hypotheses number four must be rejected. This indicates that independent directors affect negatively DPS in the companies listed on PEX. This finding agrees with [14], who indicates that Greater board independence has no positive impact on the company value, and poorly performing companies increase their proportion of outside directors over time [17]. Also, this indication may disagree with Palestinian G. code, which demands at least two independent directors in the audit committee in order to improve both integrity and performance. In the same way, Table 6 also shows that at the 5% significance level, there is no significant impact between institutional investors in the board and DPS value ( $Z$  statistic = +1.408, probability = 0.159). This result indicates that hypotheses number five must be rejected, which indicates that institutional investors in the board negatively affect DPS in the companies listed on PEX. These results agree with recent studies that do not agree about the effect of institutional investor on the DPS as [1], who indicates that at the 1% rate in Jordan, there are negative major relationships between institutional investors and (DPS) [1]. Such researchers [5], indicate that in both South Africa and Kenya, institutional ownership has a favorable impact on dividend payout. These controversial results explain the study finding that there is no impact of this variable on DPS in Palestinian case.

As shown in Table 4.7, there is a strong positive relationship between the control variables of firm size, and DPS value ( $Z$  statistic = 7.337, probability = 0.00) at the 1% significance level. This indicates that as firm size rises, the DPS will rise as well in Palestinian case. This indication agrees with Lappalainen and Niskanen (2012), who indicates that in a sample of Finnish small to medium-sized companies, board structure has little effect on small firm output [4]. This suggestion includes the possibility of a large impact presence of board characteristics in the case of large firms.

According to the results shown in Table (4.7), Where ( $Z$  statistic = +2.294, probability = 0.022) at the rate 5% significance level, there is a significant association between the control variable of profitability and DPS in PEX listed firms. And this result agrees with Song et al. (2016), who indicate that panel regression analysis shows that board characteristics have a negligible effect on operational efficiency in the restaurant industry [24]. And Aloudat et al. (2019), who indicate that In Jordan, firm profitability has a positive impact on the DPS at the 5% confidence rate [1].

Because value ( $Z$  statistic = +2.027, probability = 0.043) at the 5% significance level, there is a significant positive relationship between audit firm and DPS in Palestine. Which means that as the presence of Big Four audit firm in the annual financial audit increases the DPs increases as well in Palestine. This finding agrees with [14], who indicate that in order to eliminate budgetary accruals, a replacement impact between the participation of a Big Four auditor and an effective audit committee [32]. Which suggest the positive impact of overall performance and partially financial performance in the firms, which is surely reflected on DPS.

At the 5% significance level, ( $t = -5.083$ , probability = 0.000) there is a meaningful negative relationship between leverage and DPS in PEX listed firms. Of course, this is a normal situation, because a part of liquidity will be consumed in paying the costs of leverage and amounts. As [21], indicate in their testing about these relationships in Palestinian firms [21], their regression analysis for the same sample assured the same

results. Normally, in this environment the debt is more costly because of political and financial complicated conditions.

Furthermore, at the value of 5% significance level, there is no meaningful relationship between the control variable outside directors in the board and the DPS in PEX listed firms, because (Z statistic =  $-1.474$ , probability =  $0.141$ ). This result agrees with [14].), who say that outside directors aren't all created equal when it comes to improving a company's image, and some types of outside directors, especially business experts, can help boost it.

Where (Z statistic =  $-0.812$ , probability =  $0.417$ ) at the value of 5% significance level, there is no meaningful effect between average tenure and DPS in PEX listed firms. This suggestion agrees with Park, and Shin (2002), who indicate that the typical tenure of outside directors on the board of directors has no impact on earnings management [20], and this earnings management happens in situations that management intent is to cover some poor performance in most cases. This means that the tenure does not affect the overall performance which is reflected on DPS in Palestine case. Other researchers assured that the average tenure of CEOs affect positively financial performance [21]. But they studied other indicators of financial performance such as ROA, and ROE by using small sample size, which may help interpret the findings of the study.

At the value of 5% significance level, there is no meaningful relationship between family management and DPS in PEX listed firms because (Z statistic =  $-0.107$ , probability =  $0.915$ ). This result agrees with [32] study [33] which stated that family management has no bearing on ROA. This indicates that a family member in the board does not make any special effort to improve firm's profitability [34].

**Table 7.** Robust least square results

Variable	Coefficient	Std. Error	z-Statistic	Prob.
BS	0.003	0.002	2.178	0.029
DUA	-0.007	0.008	-0.922	0.356
IND	-0.032	0.023	-1.432	0.152
INS	0.017	0.012	1.408	0.159
LNTA	0.018	0.002	7.337	0.000
ROA	0.091	0.040	2.294	0.022
LEV	-0.089	0.018	-5.083	0.000
OUTS	-0.022	0.015	-1.474	0.141
TENU	-0.006	0.008	-0.812	0.417
AUF	0.015	0.008	2.027	0.043
FM	0.001	0.008	0.107	0.915
GEN	0.071	0.028	2.502	0.012

(continued)

**Table 7.** (continued)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.310	0.037	-8.317	0.000
Robust statistics		Adjusted R-squared	0.010	
R-squared	0.049	Deviance	0.002	
Scale	0.049	Prob (Rn-squared stat.)	0	
Rn-squared statistic	167.389			

Where: BS represents board size, DUA: CEO duality, IND: independent directors, INS: institutional investors, LNTA: firm size, ROA: profitability, LEV: leverage, OUTS: outside directors, TENU: average tenure, AUF: audit firm, FM: family management, GEN: gender, and C: intercept.

## 8 Conclusion

In terms of the independent variables, the regression analysis indicates that board size has a positive impact on DPS. Since the board members are investors in the company, this result indicates that as the board size grows, the DPS will rise. The presence of women on the board has a positive impact on DPS. This finding indicates that as the number of women on the board grows, so will the DPS, since women members want to see their contributions reflected in the company's success rather than men. Institutional investors have no effect on DPS. This finding suggests that institutional investors are unconcerned about DPS. Since institutional investors are interested in the company's potential prospects and can keep their shares in order to benefit from capital gains. DPS is unaffected by the presence of independent directors on the board. This indicates that the independent directors are split on whether or not to pay dividends. That in most cases, the number of independent directors is less than the majority. Additionally, CEO duality has no impact on DPS. Since the centralization environment is dominant in Palestine, the CEO's decision on dividends has little impact in both cases.

Return on assets (ROA) has a favorable impact on DPS. This indicates that as the ROA rises, the DPS will rise as well. That when businesses raise their earnings, they have met the appropriate reserve amount and can then allocate the remaining profits. The size of the firm has a positive impact on DPS. This result indicates that as the firm's size grows, so will the DPS. Since large corporations make large profits, the decision to pay dividends is more likely. Leverage has a negative impact on the DPS. This result indicates that as the firm's leverage grows, the DPS will decrease. Since leverage - in most situations- adds to the company's challenges by requiring it to cover the debt's costs and the parts due from it. Finally, there is no impact of outside directors, average tenure, and family management on the DPS. The core importance of this research in concentrating data analysis on the final outcome of the investment decisions. This is what investors could rely on deeply in studying investment choices. Another value of this study that it can help the legislation, and official institutions in this field in making their best effort to develop governance code as the society hopes.

From a practical point of view, both shareholders and stakeholders have the opportunity for a quick assessment of firm's payout policy though their governance structure.

For example, our findings reveal some weaknesses and strength of the governance role in formulating the dividends payout policy of corporations and indicate that there is a scope for further improvement in national and international monitoring and enforcement mechanisms. Also, this study provides evidence that a stronger specific CG is associated with a higher level of dividend payment. Therefore, regulatory bodies are expected to be more proactive in guiding firms toward the best practices of governance as companies look for such guidance. The study's main drawback is the limited sample size, which reflects all public shareholding companies listed on the Palestine Exchange from which the researcher was able to collect the required data for the study, making it difficult to split it into sectors such as family businesses, banks, insurance companies, and others. There are a variety of political, social, and legal variables that can affect economic outcomes. These variables, such as the presence of several financial crises to which the Palestinian economy has been exposed, may have an impact on the study's variable. Despite the limitations, this study contributes to the dividend literature. For the first time, new context was evaluated in relation to the governance variables impact on payout policy.

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