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Article: **Female Presence on Corporate Board and Dividend Decisions: Evidence from Emerging Market**

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Female Presence on Corporate Board and Dividend Decisions: Evidence from Emerging Market

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Abstract

This research sheds light upon how does the inclusion of female board members effect the dividend payout behavior of a firm in the emerging market like Pakistan. Our study targets the listed financial and non-financial firms on KSE-100 index from the period of 2011 to 2018. Empirical results establish the real truth between board composition and dividend. The findings of OLS regression and Tobit regression models reveal that women directors are more inclined towards reinvesting the free cash flow in order to gain profitable opportunities rather than distributing it in the form of dividends, thus supporting a negative relationship between the two variables. The findings of our estimations suggest that board composition does not prompt the dividends but female directors do hold some valuable characteristics that can serve as a source of growth for the firms. Thus, we argue that board gender diversity is useful for firms or not.

Keywords: Dividend payouts, Female director, Board of directors, Business education, Pakistan

Introduction

It is commonly known in our society that a woman accords top priority to her family and home than her official commitments. There also exist some imperceptible societal barriers which deny women various opportunities (Mustafa et al., 2020). A common issue in many societies including in Pakistan is the superiority complex of men which results in establishing male dominant societies. The ratio of female members in the corporate sector as compared to the male members is very low (Trinh et al., 2020). This is mainly due to the perceptions that women are less competent than

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men, they lack decision making power and are emotional. Therefore, they lack strategic capability to survive in the corporate sector (Mirza et al., 2012).

However, in view of the growing cultural and technological changes, this traditional impression has been dispelled a great deal during the past few decades. A growing number of women are now joining corporate sector across the globe despite the fact that the level of equality between both the genders in terms of income, growth opportunities, workplace environment and decision-making is still different. (Amin et al., 2021).

Diversity in the boardroom is an ongoing debate and an issue of great importance in the recent times, gaining tremendous attention from several stakeholders including organizations, governments, investors and general public (Kılıç & Kuzey, 2016). From an ethical standpoint, board gender diversity enhances a firm's ability to lead the interests of various shareholders and positively impacts the financial performance (Harjoto et al., 2015). Some previous studies negatively view the relationship of board gender diversity with dividend payout and financial performance of a firm (Reguera-Alvarado et al., 2017) whereas a significant number of researches have presented arguments in favor of the positive relationship between these variables (Fauzi et al., 2017; Gyapong et al., 2021; Kılıç & Kuzey, 2016). Nevertheless, there exist some studies which haven't been able to develop any association between these variables (Rose, 2007).

Gender diverse boards are significantly viewed as a source of monetary benefits for the organizations and their worth is increasingly recognized by the stakeholders as well (Harjoto et al., 2015). Gender diverse boards also provide diversification in terms of experience, thinking pattern, decision making processes and expertise which can result in profitable investments and increased revenues (Nielsen & Huse, 2010b). An extensive body of literature (Al-Rahahleh, 2017; Gyapong et al., 2021) clarifies that the boardroom diversity not only plays a role in efficient decision making but also leads to good governance mechanisms which in turn serve as a source of growing the shareholder's wealth (Nielsen & Huse, 2010a).

Supporting positive role of women in the board composition, the study of Adams and Ferreira (2009) states that their addition to the corporate

sector brings various profitable chunks for firms. Women are more ethical than men and the companies which consist of two or more than two female directors tend to perform better in contrast to the ones which do not have female members on their board.

The results of our study depict that women own more diverse professional skills as against men and tend to utilize the free cash flow of the firm for various profitable investments instead of disbursing it as dividends (Nielsen & Huse, 2010). They are more risk averse in nature and therefore also prefer to hold cash as a precautionary buffer to effectively deal with any unforeseen crisis. While addressing this important topic, we mainly examined the effects of gender diverse boards and the involvement of female directors on the dividend payout patterns of a firm. To investigate this relationship, we have targeted the KSE-100 listed financial and non-financial firms for the 2011 to 2018 time period. The econometric techniques used in this study includes Pooled OLS regression and Tobit regression models. Our final sample consists of 698 firm-year observations from Pakistan.

The current research contributes to the existing body of literature in numerous ways. Firstly, the study highlights the exemplary role of women in the emerging markets like Pakistan. The risk free polite nature of women helps an organization strengthen its relations with its shareholders. Moreover, due to their comprehensive and informed decision making capability, they're likely to become a universal economic force, occupying a significant position in the boardroom in near future. This will not only open up new career progression avenues for women directors but also bring high profits to companies. Thus, the inclusion of female directors helps reduce the overall risks of a firm due to their cautious nature, also enhancing its financial stability.

The rest of the study is organized as follows. Section 2 explicates the relevant literature and testable hypotheses. Section 3 discusses the research design and methodological approach. Section 4 describes the descriptive statistics, correlation, main regression and Tobit regression results. Section 5 concludes the study and makes some suggestions for future research.

Literature Review

A position in the board is viewed as a source of information that assists shareholders in monitoring the pragmatism of managers. Its members are actively involved in supervising managers' decisions in order to ensure that every action conforms to the goals of the organization and maximizes the shareholder's wealth (Torchia et al., 2015). Several researchers have acknowledged that the attribute of board gender diversity (i.e. the presence of females on board) is a significant factor which contributes towards the strong corporate governance structures and in turn, corporate dividend payout policies for a firm (Baker et al., 2020; Kang et al., 2007; Rao & Tilt, 2016).

Agency Theory

This theory is known as one of the commonly used concepts for investigating the board characteristics of an organization. It is based on the idea whereby the management utilizes a firm's resources for its own benefit instead of consuming them for enhancing the shareholder's value (Kakabadse et al., 2015). Amongst many arguments related to the establishment of an effective board system, the agency theorists debate that the existence of female members on board serve as a source to sustain strong governance mechanisms (Carter et al., 2010). Supporting this viewpoint, Trinh et al. (2020) state that a boardroom consisting of members from different backgrounds, sharing varied perspectives helps in improving the decision making capability of a firm.

The presence of female directors in the boardroom plays a vital role in mitigating the agency problems. The mixture of male and female members also enhances the quality of governance.(Elmagrhi et al., 2019). Conferring to the agency theory, dividends are counted as one of the supreme tools to address the conflict of interest caused due to the agency problems by means of minimizing the amount of free cash flow which can be exploited by the managers (DeAngelo et al., 2006). Hence, females tend to employ the dividend payout policy in order to effectively monitor and prevent the managers from any such activity which satisfies their own personal interests instead of maximizing the shareholder's wealth (Gyapong et al., 2021).

Resource Dependency Theory

The resource dependency theory highlights some of the crucial facts concerning the appointment of female members on board. It elucidates that the board plays a role in creating a linkage between a firm and its resources (Mustafa et al., 2020). This linkage provides several benefits which includes leadership, legality to the organization and communication links to voters of significance of the organization (Ali et al., 2014). Studies have suggested that the existence of women on board plays an essential role in bringing all these advantages to the organizations (Rodríguez-Ariza et al., 2017; Tahir et al., 2020b). Referring to the theory of resource dependency, Chen et al. (2019) described that in order to enhance the general legality and encourage the new and existing female workforce, firms should consider adding women to their board composition.

The presence of females on board also aids in providing a valuable form of pragmatism with deference to other stakeholders, that is, those firms which are more customer oriented tend to include greater number of females on their corporate boards to achieve their organizational goals in terms of the beliefs of their clienteles (Brammer et al., 2007). Another important trait of women that makes them a more valuable choice for an organization as compared to men is their power of interpersonal skills, which helps in dealing efficiently with other business groups. Hence, better communication skills bring various benefits to the organizations and help formulate market oriented strategies (Nielsen & Huse, 2010b).

The level of legal fortification of shareholders is explained by the dividend payout policy of an organization (Brammer et al., 2007). While this legal fortification is strong, the management is forced to make the dividend payments. In contrast, dividends are paid according to the will of management and majority shareholders where the level of legal fortification for shareholders is weak (Sanan, 2019). Benjamin and Biswas (2019) proposed that the level of fortification provided for the minority shareholders in a company illustrates the mechanism of corporate governance and their influence on the company's dividend policy. Thus, academic literature has reported varied results regarding the impactt of the board gender diversity on a firm's overall performance and dividend policies.

Stakeholder Theory

The rationale behind the Stakeholder Theory is that companies should consider the interests of all of their stakeholders instead of just focusing the shareholders in order to maximize their value (Saeed & Sameer, 2017). The basic ideology of this theory revolves around the fact that stakeholders are an important constituent, required for the survival and smooth functioning of an organization (Galbreath, 2018). Thus, the purpose of the dividend policy of a company must not be restricted to maximizing the shareholders' wealth but also to maximizing profits for various stakeholders. It consists of, but not limited to, employees, managers, shareholders, suppliers and consumers (Ben-Nasr, 2015).

It is projected that the inclusion of women on boards results in strong and healthy relationship with the stakeholders since they tend to focus more on the needs of others, which in turn makes firms capable of understanding the demands of their stakeholders in a more better way (Miles et al., 2006). Henceforth, based on the inferences of the stakeholder theory, it is concluded that gender diverse boards are a contributing factor to enhance the dividend payout ratio of a firm (Adjaoud & Ben-Amar, 2010).

Hypothesis Development

Board Gender Diversity

The benefits of board gender diversity includes improved inventiveness and greater returns for the organization (Galbreath, 2018). Those firms which consist of diverse board structures are predicted to have improved governance systems which leads to stronger protection for their stockholders. Numerous studies (McGuinness et al., 2015; Reguera-Alvarado et al., 2017; Shehata, 2021) elucidate that the board gender diversity serves as a more efficient monitoring tool for managing the board's strategic decision making processes, given the reason that female directors offer unique sets of information to the board and thus are better able to understand the intricacies of their surroundings, leading to a decreased threat of group thinking and more insightful decisions. Referring to this argument, the study of Saeed et al. (2016) indicated that the differences that exist between a male and female mindset and attitude leads

to manifold decisions inside the board, which might positively be linked to improving the firm's financial performance.

Furthermore, the findings of Reddy and Jadhav (2019) state that gender diversity in the boardrooms has a positive impact on the dividend payments of a firm. Gender diverse boards assist in improving the governance practices of a firm and also promote the dividend payout policies. The gender diversity brings moral values and innovative ideas into the boardroom and tends to limit the influence of male members, thus streamlining operations of firms (Terjesen et al., 2009). Previously, the board only comprised male members. But with the recent advancements, there has been a strong debate for making it diverse with the addition of female members. Surprisingly, firms comprising diverse board structures are also greatly inclined to strong CSR practices (Shaukat et al., 2016). With proposals that women are capable of bringing diverse professional involvements in comparison to men, it is deduced that gender diversity is important for formulating better dividend structures while offering a strategic base for investment decisions (Ward & Forker, 2017).

However, there are some studies which support the negative relationship of dividend payout with gender diverse boards (Galbreath, 2018; McGuinness et al., 2015; Mirza et al., 2012). People belonging to different backgrounds and possessing different skills and knowledge might create integration problems, and hence can negatively impact afirm's fiscal strategies (Campbell & Mínguez-Vera, 2008). In their study, Adams and Ferreira (2009)say a common practice followed by several firms is that they hire female members just as a symbolic representation to showcase their boards as gender diverse ,, whereas in reality they aren't diversified. Such a practice provides room for further research regarding the impact of gender diverse board on a firm's operations.

Based on the above arguments we hypothesize that,

H1A: Board gender diversity has a positive relationship with dividend payout.

H1B: Board gender diversity has a negative relationship with dividend payout.

Percentage of Female Board Members

Historically, the board commonly comprised just male members. With the growing innovation and advancements in the recent years, there has been a strong debate regarding the inclusion of female members in it, given the reason that they provide varied perspectives and assist in enhancing the decision making process and articulating dividend payout policies (Konrad et al., 2008; Nielsen & Huse, 2010a).

There exists a wide range of studies which examined differences between the male and female mindset that are evident from the nature of decisions and governance practices implemented by both the genders in the boardroom (Carless, 1998; Chen et al., 2019; Reddy & Jadhav, 2019). Moreover, based on the views associated with management studies and cognitive psychology, females possess a more risk averse and conservative attitude in comparison to males (Parrotta & Smith, 2013). They also help in increasing the efficacy and effectiveness of organizations due to their hardworking and persistence (Ittonen et al., 2010). The higher percentage of women on boards also serve as a source of executing profitable economic strategies (Harjoto et al., 2015). They offer valuable insight to resolve complex issues and also portray professionalism and veracity in their everyday dealings (Smith & Parrotta, 2018).

Some of the studies have presented the view that the presence of higher percentage of female directors in the boardroom has a negative relationship with the dividend policy of the firm (Al-Rahahleh, 2017; Kılıç & Kuzey, 2016; Sanan, 2019). The negative association is based on their risk averse attitude as compared to men (Arano et al., 2010). By utilizing the amount of free cash flow for the organization's growth purposes, they enhance the power of management on boards and thus favor low dividend payments (Tahir et al., 2020a).

Psychological literature related to the gender differences also indicates that females cautiously deal with important financial matters and hence think twice before making any decision (Kılıç & Kuzey, 2016). In general, these findings suggest that women on boards tend to avoid any risky investments/opportunities while greatly focusing upon factors that lead to the growth of firms. Due to conservative nature, they also tend to hold cash

as a preventive measure for any potential risk/uncertainties instead of utilizing it for dividend payments (Mustafa et al., 2020). Hence, based on the above arguments drawn from the literature, we propose our hypothesis as:

H2A: Higher percentage of female board members has a positive relationship with dividend payout.

H2B: Higher percentage of female board members has a negative relationship with dividend payout.

Female Business Education

Business education of women plays a vital role in ensuring smooth running of organizations. Appointing female members on board is considered fruitful as it amplifies diversity of ideas, positively impacts the leadership mechanism and makes the decision making process faster and efficient (Fauzi et al., 2017). Women equipped with professional business education not only enhance a firm's corporate image in the market but also offer intellectual thinking capabilities that help in taking better economic decisions and lead to fruitful utilization of a firm's free cash flow (Faccio et al., 2016; Weber & Zulehner, 2010).

Higher business education of female directors increases a company's performance by engaging in investments with higher returns, offering lower dividends to the shareholders and utilizing the excess cash in other profitable ventures (Julizaerma & Sori, 2012). Furthermore, the research of Berger et al. (2014) observed the characteristics of board members in terms of their age, gender and education and deduced that the higher academic qualification of female members in the boardroom tends to reduce the company's risk. The importance of education is widely recognized in a lot of researches since it plays an essential role in the financial growth of a firm and cultivates technical innovation (Adams & Ferreira, 2009). It is proposed that the women having access to a higher level of business education and expertise will be able to manage free cash flows of a firm in a more organized manner while satisfying the shareholders as well in contrast to those who lack such kind of knowledge (Ritter-Hayashi et al., 2016).

Further, the business education of a female director significantly influences a firm's revenue and economic performance (Abdul, 2016). Though a great number of women are working in the corporate sector nowadays, the fact that they are responsible for their domestic chores and kids still holds ground. This creates a higher degree of burden and stress for the women which can affect their productiveness at the workplace (Huang & Kisgen, 2013). Thus, this decreases the amount of dividend payments made to the shareholders (Fauzi & Locke, 2012). Hence, our third hypothesis suggests that:

H3A: Female business education has a positive relationship with the dividend payout.

H3B: Female business education has a negative relationship with the dividend payout.

Data Methodology

Sample

The sample of this study was collected from several sources to test our proposed hypothesis. We considered firms listed on the KSE-100 at year end of 2018 which included financial and non-financial firms. There were a few reasons to select this sample. Firstly, Pakistan is considered as an emerging market. Secondly, according to the Pakistan Company Act 2017, this initiates the step to diversify corporate governance. Thirdly, Pakistan is the best platform to examine the volatility of an emerging market. The sample of KSE-100 strictly follows framework of the International Accounting Standard (IAS) and International Financial Reporting Standards (IFRS).

Data was collected from Pakistan Stock Exchange (PSX)[1], company website[2], and third-party website for the period of 2011 to 2018. Data on KSE-100 is easily available on the PSX website. For women on board variables, we used firms' annual reports which were downloaded from the Pakistan Stock Exchange (PSX) and firms' websites. Share prices were also collected from the Pakistan Stock Exchange website. Data on accounting

[1] https://financials.psx.com.pk/#
[2] http://www.opendoors.pk/Home-Page2/data/annaul-reports-of-kse-listed-firms

and financial variables was gathered from firms' annual reports and data on dividend payout was collected from the daily Business Recorder website[3]. The final sample consisted of 698 firm-year observations from Pakistan covering the 2011 to 2018 period.

Econometric Model

To analyze the relation of dividend payouts and board composition, we used the following regression models. This regression model was also used in prior studies (Attig et al., 2016; Chen et al., 2017; Saeed & Sameer, 2017).

$$Dividend_{it} = \beta_o + \beta_1 Fem\_Dum_{it} + \beta_2 Firm\_Size_{it} + \beta_3 Growth_{it} + \beta_4 ROA_{it} + \beta_5 Leverage_{it} + \beta_6 Risk_{it} + IndDummies + YearDummies + \varepsilon_{it} \quad (1)$$

$$Dividend_{it} = \beta_o + \beta_1 Fem\_Dir\_Ratio_{it} + \beta_2 Firm\_Size_{it} + \beta_3 Growth_{it} + \beta_4 ROA_{it} + \beta_5 Leverage_{it} + \beta_6 Risk_{it} + IndDummies + YearDummies + \varepsilon_{it} \quad (2)$$

$$Dividend_{it} = \beta_o + \beta_1 Fem\_B\_Edu\_Dum_{it} + \beta_2 Firm\_Size_{it} + \beta_3 Growth_{it} + \beta_4 ROA_{it} + \beta_5 Leverage_{it} + \beta_6 Risk_{it} + IndDummies + YearDummies + \varepsilon_{it} \quad (3)$$

The detailed definitions and data sources of all above mentioned variables are given in 'Appendix A'.

Results and Discussion

Descriptive Analysis

Table 2 shows descriptive statistics of all the regression variables. This table reports the distribution of dividend payouts, gender diversity and all control variables (whole sample, Male-Dominated, and Gender Diverse board). Overall, the sample explains that each shareholder received PKR 4.6 dividends, also revealing that emerging markets like Pakistan have about 8 members on the board including both males and females. But statistics show that there are 37% females on the board. The education of board members is a very crucial part to implement the strategies to mitigate

[3] https://markets.brecorder.com/company-information/dividend-data.html

the agency problems among the agents and shareholders (Amin et al., 2021). Thus, results from the sample show that only 4.85 members have business education. The results of Fem_Dum depict that only 29.63% of corporate boards have at least one female member on their boards. However, the contribution of female directors having business education on the board is only 22.4%.

Table 1

Descriptive Statistics

	Whole sample			Male-Dominated Boards			Gender Diverse Board		
Variable	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Dividend	718	4.667	4.521	511	4.804	4.476	207	4.329	4.626
BoD	758	8.591	2.415	546	8.593	2.476	212	8.585	2.256
Fem_Dir	758	0.380	0.688	546	0.000	0.000	212	1.358	0.603
B_Edu	758	4.855	2.371	546	4.727	2.496	212	5.184	1.983
Fem_B_Edu	758	0.224	0.516	546	0.009	0.095	212	0.778	0.710
Fem_Dum	776	0.296	0.457	546	0.000	0.000	230	1.000	0.000
Fem_Dir_Ratio	742	0.048	0.088	530	0.000	0.000	212	0.168	0.082
Fem_B_Edu_Dum	735	0.048	0.119	523	0.002	0.018	212	0.163	0.174
Firm_Size	762	17.560	1.653	546	17.657	1.704	216	17.319	1.495
Leverage	761	0.538	0.281	546	0.564	0.279	215	0.470	0.277
ROA	762	0.073	0.085	546	0.072	0.086	216	0.077	0.083
Growth	757	0.314	1.013	542	0.299	1.015	215	0.354	1.008
Risk	740	0.022	0.019	541	0.022	0.022	199	0.022	0.009

Table 2

Variables Definition

Variables	Description	Source
Dependent Variable		
Dividend	Dividend Paid for a single share	Annual Report of Company/Business Recorder
Independent Variables		
Fem_Dir	No of Female Directors in the BoD	Annual Report of Company
B_Edu	Board of Education	-

Variables	Description	Source
Fem_Dum	For the presence of a female, we used Dummy Variable, 1 if there is female on BoD, 0 otherwise	-
Feb_Dir_Ratio	The ratio of females on board. No. of female Directors divided by Total Board members	-
Fem_B_Edu_dum	The ratio of female directors and use Dummy Variable, 1 if there is business educated female on BoD, 0 otherwise	-
Fem_B_Edu	Female Board of business education	-
BoD	Size of board	-
Control Variables		
Firm_Size	For the Firm's size. Ln(total asset)	-
Leverage	To check the leverage of the firm. Total debt/ total asset	-
ROA	For Return of assets. Net income /Total asset	-
Growth	For growth of firm $(t.asset_t\text{-}t.total_{t-1})/t.asset_{t-1}$	-
Risk	The standard deviation of returns of Stocks	Pakistan Stock Exchange

Comparison between the male-dominated boards and gender diverse board results reveal that the former pay more dividends than the latter (Gyapong et al., 2021). Board size is the same for the male-dominated and gender diverse boards. The strength of female members on such boards is nearly one. Five board members have business education and they include roughly one female. Firms which often engage females in their boardroom have less leverage. The performance of a firm increases by hiring females (Nielsen & Huse, 2010a). The results have shown that the gender diverse boards have high growth than the male-dominated ones.

Correlation

Aribi et al. (2018) uses the ± 80% of correlation as a threshold value for major multi-correlation problems that might exist and harm the OLS and Tobit regression.

Table 3

Correlation

Variable	1	2	3	4	5	6	7	8	9
(1)Dividen	1								
(2)Fem_Dum	-0.048	1							
(3)Fem_Dir_Ratio	-0.069	0.866	1						
(4)Fem_Dir_Edu_Ratio	-0.081	0.613	0.713	1					
(5)Firm_Size	0.081	-0.092	-0.163	-0.048	1				
(6) Leverage	-0.157	-0.150	-0.180	-0.100	0.462	1			
(7) ROA	0.236	0.026	0.080	0.049	-0.180	-0.415	1		
(8) Growth	0.066	0.024	0.029	0.037	0.118	-0.420	0.178	1	
(9) Risk	-0.170	-0.015	-0.003	-0.002	-0.271	0.065	-0.216	-0.107	1

In our correlation matrix (Table 3), the correlation between every variable is less than 80% except for the three corporate governance variables (Fem_B_Edu, Fem_Dir_Ratio, Fem_Dum). But these variables have been separately used in different regression models. Thus, these three variables do not harm the results of regression. The results of other variables show that the Firm_Size variable has an 8.1% correlation with dividend payouts which defines that when firms increase their size, they pay dividends but in less amount. The correlation between Firm_Size and Fem_Dum shows that as the firm size increases, the hiring of female members reduces. Collectively, Table 3 shows that there is no multicollinearity issue in our regression variables

Table 4

Pooled OLS Regression

	Dependent variable		
Variable	(1)	(2)	(3)
Fem_Dum	-0.589* (-1.93)	-	-
Fem_Dir_Ratio	-	-4.209** (-2.15)	-
Fem_B_Edu_Dum	-	-	-3.697*** (-2.59)

	Dependent variable		
Variable	(1)	(2)	(3)
Firm_Size	0.461***	0.439***	0.450***
	(3.46)	(3.27)	(3.34)
ROA	9.3592***	9.520***	9.431***
	(4.44)	(4.50)	(4.44)
Leverage	-3.089***	-3.072***	-2.994***
	(-3.96)	(-3.67)	(-3.57)
Growth	-0.388**	-0.379**	-0.374*
	(-2.03)	(-1.98)	(-1.94)
Risk	-18.770**	-18.659**	-18.564**
	(-2.05)	(-2.02)	(-2.01)
Intercept	-1.635	-1.119	-1.346
	(-0.73)	(-0.49)	(-0.59)
Year effects	Yes	Yes	Yes
Industry effects	Yes	Yes	Yes
Observations	698	687	680
Adj. R-square	0.090	0.091	0.092

This table presents OLS regression. Variables are defined in *Table 2*. The parentheses. ***, **, and * indicate the coefficient is significant at 1%, 5%, and 10% respectively.

Main Regression Results

Table 4 depicts the main regression results. The table includes analysis with three different models. In the 1st model, dividend payout is the dependent variable along with Fem_Dum as the independent variable. It is a dummy variable with 1 portraying the presence of female members on board and 0 their absence. The variable shows a significantly negative relationship with the dividend payout policy of a firm. This negative association between the two variables verifies that women possess a conservative attitude while dealing with important financial matters and they generally tend to hold cash for longer periods as a precautionary measure against future uncertainties (Brammer et al., 2007). Ultimately, this lowers the ratio of payments made to shareholders as dividends. This is also evident from the findings of Elsaid and Ursel (2011) that female directors prefer choosing less risky options in comparison to male directors.

In the 2nd model, *Fem_Dir_Ratio* is used as the independent variable to examine its impact on the dividend payout structure of a firm. It depicts a significant and negative relationship with the dependent variable at 5% level of significance. These results also reveal that having more female members in the board negatively affects the dividend structure since their preference for growing the company by acquiring several profitable ventures is greater rather than just using the excess cash for dividend payments (Bart & McQueen, 2013). This in turn raises the chances of women directors exhibiting a greater inclination towards preventive cash holdings and lowered risk for firms (Arano et al., 2010).

The results of the 3rd model are also somewhat similar to the previous two models. In this model, *Fem_B_Edu_Dum* is used as the independent variable. Female business education is used as a dummy variable here with 1 for women equipped with business education and 0 for others. The variable represents a negative and significant relationship with the dividend payout policy. Education plays a crucial role in efficiently shaping the board structure. Female directors possessing higher business knowledge are better able to handle complex issues and understand the stakeholder's expectation (Elmagrhi et al., 2019; Kakabadse et al., 2015).

All three models present in Table use Firm_Size, ROA, Leverage, Growth and Risk as the control variables. Firm_Size and ROA shows a positive and significant relationship with the dividend payout, supporting the word that large and profitable firms are more likely to pay dividends. The variables of risk and leverage depict a negatively significant relationship with the dependent variable, implying that having volatility and debt financing, result in some constraints over the dividend policy (Adams & Ferreira, 2009). Growth also has a negatively significant association exemplifying that once grown, firms prefer to use their free cash flow for investment instead of distributing it as dividends.

Tobit Regression Analysis

Another valuable technique used in this study is the Tobit regression. It is a distinct form of more general censored regression model which utilizes a condensed normal distribution along with inflation at a defined censoring point (Wang & Griswold, 2017). Most of the papers which presented the

results using the Tobit analysis depicted the approximation and implication of an exposure effect over the dormant dependent variable. Though the dormant exposure impact might vary significantly from the experiential marginal impact, it may lead to possibly unsuitable conversions of the exposure impact (Ai et al., 2015). Thus, in most cases, it would be more suitable, explainable and valuable to portray exposure impacts based on the original (against latent) response variable. Moreover, Tobit regression model (TRM) is a kind of study which includes dividend payout as the dependent variable, hence the right method for examining the results is based on the maximum probability. The reason behind the suitability of this technique is the limited nature of the dependent variable (Ibrahim & Shuaibu, 2016). The variable dividend payout can only have two possible values, i.e., positive in case dividend is paid and zero in case of no dividend, but there can be no negative value. Hence, by applying TRM zero values are censored which makes the results more stable and reliable (Avkiran, 2009). The study of Saeed and Sameer (2017) also used Tobit model to estimate the coefficients of regression between board gender diversity and dividend payout.

Table 5

Tobit Regression

	Dependent variable		
Variable	(1)	(2)	(3)
Fem_Dum	-0.800* (-1.72)	-	-
Fem_Dir_Ratio	-	-4.862** (-2.04)	-
Fem_B_Edu_Dum	-	-	-3.432** (-1.98)
Firm_Size	0.273 (1.52)	0.225 (1.25)	0.224 (1.24)
ROA	14.239*** (5.02)	14.245*** (5.01)	13.939*** (4.89)
Leverage	-3.195*** (-2.97)	-3.012*** (-2.81)	-2.819*** (-2.65)

	Dependent variable		
Variable	(1)	(2)	(3)
Growth	-0.453* (-1.93)	-0.417* (-1.78)	-0.402* (-1.72)
Risk	-260.486*** (-7.16)	-272.065*** (-7.23)	-269.444*** (-7.18)
Intercept	-0.007 (-0.68)	-0.007 (-0.69)	-0.006 (-0.60)
Net_Cash_Flow	6.090* (1.80)	7.259** (2.12)	7.132** (2.08)
Year effects	Yes	Yes	Yes
Industry effects	Yes	Yes	Yes
Observations	696	687	680
Pseudo R-Square	0.050	0.108	0.109

This table presents the Tobit regression. Variables are defined in Table 2. The parentheses. ***, **, and * indicate the coefficient is significant at 1%, 5%, and 10% respectively.

Table 5 depicts the results using the Tobit regression model. These findings are somewhat similar to the findings of table 3. All three models using Fem_Dum, Fem_Dir_Ratio and Fem_B_Edu_Dum as the independent variables show a significantly negative relationship with the dependent variable. Female board members possess a proactive decision making approach and hence prefer to reinvest cash savings in various profitable projects instead of using them for paying dividends (Bart & McQueen, 2013).

Conclusion

This article deliberates upon the relationship of board composition by focusing on dividend payout policy of a firm. This study analyzed the impact of board gender diversity on dividend payout. It also determined how dividend payout is affected by the presence of females in the boardroom. The findings revealed that the presence of women directors tends to reduce a firm's risk while bringing profitable future opportunities. However, the relationship of women directors with dividend payout is

negative due to their conservative and risk-averse nature. Women possess a greater capability to keenly observe the pros and cons of each activity being performed and thus tend to take every step/decision carefully (Arano et al., 2010). To make companies prosper, they avoid making dividend payments and prefer to reinvest the free cash flow.

It was determined that the negative association between dividend payout and women on board is due to their risk averse attitude. For this reason, women directors are more inclined to hold cash as a precautionary buffer against any future losses. Furthermore, business education also plays a vital role in enhancing the decision-making process of the firms. Female board of directors, possessing business degrees, are a source of lowering a firm's risk since they save excess cash as a safeguard against any undesirable circumstances and only utilize it for profitable endeavors. This is also a cause of reduced dividend payments made by firms (Kılıç & Kuzey, 2016).

The sample for this study included the listed financial and non-financial firms on KSE-100 at year end 2018. Data collection was done through company websites, PSX and third-party website. The final sample comprised a total of 698 firm year observations from Pakistan for a period of 2011-2018. For the purpose of analysis, we used OLS and Tobit regression models.

Our study also provides important guidelines for future researchers. Based on the findings, it is recommended that companies should consider the appointment of a higher ratio of women in their boardrooms, since increased ratio of female members in the board composition will not only bring financial benefits but also offer moral commitments, communal reflectivity and attract human talent (Reddy & Jadhav, 2019). The findings also also holds strong implications for the two basic groups in the market including the government and market regulators (law makers, managers, and shareholders). With the help of our findings, both groups have an opportunity to improve social policies and corporate decisions that encourage the inclusion of women in the board composition.

The limitations of the study can serve as reference for future research. Since this study only examined data gathered from the period 2011 to 2018, future researchers may expand the data sample to get more reliable and

generalized results. Additionally, the results of this study could be diversified by considering other attributes of board members, such as age and experience of male and female board members and ownership structure of firms. This would provide a deeper insight into the causes that regulate dividend payments.

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