Indian Journal of Economics and Business
Vol. 20 No. 3 (December, 2021)

http://www.ashwinanokha.com/IJEB.php

Does Capital Structure effects Firm's Financial Performance? An Intervening Analysis of Dividend Policy Decisions among Listed Manufacturing Firms of Pakistan

Sarfaraz Ahmed Bhutto[1*], Dr. Hassan Jawad Soomro[2], Dr. Ikhtiar Ali Ghumro[3]

[1] PhD Scholar, Institute of Commerce& Management, Faculty of Management Sciences, Shah Abdul LatifUniversity Khairpur, Sindh, Pakistan, Sarfaraz_ahmed0333@yahoo.com*
[2] Professor, Institute of Commerce& Management, Faculty of Management Sciences, Shah Abdul LatifUniversity Khairpur, Sindh, Pakistan.
[3] Professor, Institute of Commerce& Management, Faculty of Management Sciences, Shah Abdul Latif University, Khairpur, Sindh, Pakistan.

Received: 07th August 2021
Revised: 06st September 2021
Accepted: 25th October 2021

Abstract: Capital structure is simply a mix of debt and equity. The best mix of debt and equity is considered as optimal capital structure, it reduces weighted average after tax cost of capital and maximizes firms' financial performance. This research aimed to identify the effect of capital structure on financial performance among listed manufacturing firms of Pakistan from 2015 to 2020. This research also traces the intervening effect of divided policy decisions on the relationship between capital structure and financial performance. Therefore, a mediating mechanism is being inducted. This research collected longitudinal data from 333 listed manufacturing firms of Pakistan. The screening and transformation of data was performed through normality measures and proxy formulas. In addition, hypotheses were assessed through a robust statistical approach, Partial Least Square- Structural Equation modelling (PLS-SEM). The statistical outcomes revealed that there is significant positive relationship between capital structure and financial performance among listed manufacturing firms of Pakistan. Moreover, it was found that dividend policy decisions mediate between capital structural and financial performance. The results comprehensively guide financial managers to observe dividend policy decisions to gain better financial performance.

Keywords: Capital Structure, Dividend policy decisions, financial performance, PLS-SEM, Mediation

Introduction

In modern era the goal of every business organization is to raise the optimal value of firm by utilizing available sources of financing. It is being the challenge for financial managers to evaluate investment projects with formal calculations of risk and return and to composite a best mix of capital structure to take financing decisions. The better choice to investment proposal and financings lead to a positive increase in

financial performance of firm (Woldemariam, 2016). However, decision to capital structure has no definite figure, it is a contentious element of balance sheet. The financial behavior of firms varies due to distinctions in business nature and financial markets, though, capital structure has no definiteness (Nazriet. Al, 2016).Dividend policy reflects the aggregate capital structure of firm. However, capital structure includes both short and long-term ratio which reflects whole financial structure and Dividend policy depends on strong financial structure of firm (Husnan, 2000). The financial performance can be directly or indirectly related to the capital structure of firm (woldemariam, 2016). The numerous investigations have been conducted on capital structure and financial performance some recent contribution in literature is made by following researchers Yousef Shahwan, (2017), Woldemariam, (2016), Nazri et al. (2016), Zhang and Yu, (2016), Sagara (2015), Muhammad et al. (2014), Mwangi et al. (2014), Kajananthan and Nimathasan, (2013). Some old investigations are directed by Masulis, (1983), Barton et al. (1988), Booth et al. (2001). Until 1958, theory of capital structure entailed of loose declarations about investor behaviour moderately than cautiously built models that could be confirmed by formal statistical analysis. In literature of corporate finance one of the most influential set of financial papers revolutionised by Franco Modigliani and Merton Miller addressing related issues to capital structure in scientific and rigorous fashion, and it led a set of chain of investigations to narrow down that topic, however, this chain continues to this day. The famous contrary studies were conducted by Jensun&Meckling, (1976), Harris & Ravi, (1991), Khan, (2012) and Khalaf, (2013) and (Beck et al, 2008). Furthermore, Financial performance is explained as increase/decrease percentage of return on invested money after performing operational activities of business (Almazari, A.A, 2014). The financial performance can be measured as return on assets (ROA), Earnings per share (EPS) and Return on equity (ROE) (Chashmsayadan et al, 2014). However, financial performance can be observed by financial statements which is drawn by a firm to examine aggregate corporate performance (Forghani et al, 2013). Therefore, it helps to understand the strength and weakness of firm's operations.

Consequently, uniqueness of this study is exclusive to observe a direct effect of capital structure on financial performance of listed manufacturing firms of Pakistan and intervening effects of dividend policy decisions on the relationship between capital structure and financial performance of manufacturing firms which are listed in Pakistan Stock Exchange (PSX). The intervening effects of dividend policy decision is hardly studied in the context of manufacturing firms of Pakistan.

Problem Statement

This study explains problem statement as issue, ideal condition, practical reality, research gape, severity of threats and identifies research problem.

Issue

It is hard deal for financial managers to derive the target capital structure of firm. Although, firms are not identical in their respective financial and procedural theme. Primarily, financial managers worry to set an equilibrium point for optimal capital structure to increase their financial performance. Second, even the right decision to capital structure may not increase financial performance unless the dividend policy decisions are not managed significantly. The issues in variation of theoretical optimum of firm in corporate decisions like (Dividend Policy) may be resolved by driving actual capital structure to boost financial performance of firm.

Ideal Condition

The ideal condition for financial managers is to observe investments risk & return and identifying a prudent level of capital structure in which manageable risk and financing flexibility keeps firm on track and appropriate dividend policies which enables investors' confidence level to reinvest and this ideal functioning would lead a firm to better and smooth financial performance.

Practical Reality

However, the practical reality from a technical perspective, the choice to capital structure (whether debt or equity) cannot be best fitted to increase the financial performance of firm. Moreover, investors (Stockholders) demand dividends on time, and the choice that whether company has/hasn't that potential to pay dividends from firm's sufficient or insufficient retained earnings encourage or damage the minds of shareholders. Meanwhile, the reality to this issue is that it is too problematic for financial managers to manage capital structure and corporate decisions to have better financial performance of firm.

Research Gap

Until Modigliani & Miller, (1958) theorem of capital structure to this day, research scholars and academicians investigated several studies worldwide to identify the impact of capital structure on financial performance of firm. There are many studies performed to observe the impact of capital structure on firm performance particularly on financial sectors (Yousef Shahwan, 2018; Zeyad, 2016; Abdallah et al, 2013; Soumade&Hayaine, 2010; Zeitun&Tian, 2007; Siam et al., 2005). Meanwhile, it seems that the manufacturing sector is yet ignored universally. However, in Pakistan few studies have been investigated on capital structure and financial performance (Tariq Javed et al., 2014). In the study of Tariq Javed et al., (2014) the sample size was limited and they did not include intervening effects of corporate decisions on the relationship between capital structure and firm performance. Another study is conducted by SaadRiaz, (2015), he just only observed the chemical industry of Pakistan, however, other manufacturing sectors and intervening effects of corporate decisions were ignored. Moreover, Farida Khanam et al., (2014) investigated the relationship of capital structure and firm performance particularly in food sector of Pakistan, however, other manufacturing firms and intervening effects of corporate decisions were also ignored in that study. Furthermore, few studies find empirical results of Dividend Policy Decisions on firm performance but ignored the capital structure and intervening effects corporate decisions (Shahid et al., 2016; Daoud et al., 2015; Zaher et al., 2014; Altarawneh, 2009; Ghadome, 2008).

Therefore, it is observed that intervening effects of corporate decisions on the relationship between capital structure and financial performance is hardly studied on aggregate listed manufacturing firms of Pakistan. This study would effort to fill research gape in the existing literature of finance. Following research gapes are found and summarily explained in bullets.

- The Impact of Capital Structure on financial performance is hardly studied on aggregate listed Manufacturing firms of Pakistan. (Tariq Javed et al., 2014; SaadRiaz, 2015; Farida Khanam et al., 2014)
- The intervening effects of Dividend Policy decision on the relationship between capital structure and financial performance of firms is not yet studied. (Tariq Javed et al., 2014; SaadRiaz, 2015; Farida Khanam et al., 2014; Zeyad, 2016; Abdallah et al, 2013; Soumade&Hayaine, 2010;

Zeitun&Tian, 2007; Siam et al., 2005; Shahid et al., 2016; Daoud et al., 2015; Zaher et al., 2014; Altarawneh, 2009; Ghadome, 2008).

- This study would also fill the research gape in the study of Yousef Shahwan, (2018). He ignored Dividend Policy decision from the corporate decisions and he conducted this study on financial sector of Jordan. However, this study would contribute evidences from manufacturing firms of Pakistan.
- This study would fill the research gape of latest Time Series which is not yet studied (Tariq Javed et al., 2014; SaadRiaz, 2015; Farida Khanam et al., 2014; Zeyad, 2016; Abdallah et al, 2013; Soumade&Hayaine, 2010; Zeitun&Tian, 2007; Siam et al., 2005; Shahid et al., 2016; Daoud et al., 2015; Zaher et al., 2014; Altarawneh, 2009; Ghadome, 2008)

Severity of Threat

In response to this problem, this study proposes to fill the necessary research gape which is yet unnoticed by academicians and scholars. The capital structure is lifeblood of a firm to raise the firm performance it is difficult for financial managers to resolve this issue. One wrong decision in making any decision like decision to capital structure and dividends could give a big loss to a firm. However, Pakistan is under developing country and this country is not too rich in industries, though it is necessary to educate financial managers of firms to take good decisions regarding capital structure to improve their financial performance.

Identified Research Problem

This study proposes to resolve issues for financial managers of Pakistani listed Manufacturing firms by investigate the intervening effects of dividend policy decisions on the relationship between capital structure and financial performance of firm. This study would effort to eliminate hurdles for financial managers to take any decision regarding capital structure and Dividend Policies in boosting up their financial performance of firms.

Significance of the Study

The findings of this study would redound to the benefits for financial managers that decision to capital structure can't be taken efficiently if corporate decisions (Dividend Policy) are not well managed. This study would suggest the better outcomes for financial managers to raise financial performance of firm. Therefore, the study topic includes Dividend Policy decision as mediators/intervening variables. However, Capital structure is taken as independent variable and on the other hand financial performance as dependent variable. The study will justify approaches of capital structure theorem and financial performance more effectively in the challenging financial environment. Thus, the recommended outcomes of this study will train financial managers better. Moreover, financial managers would be guided on what be emphasised on the capital structure theorem to raise financial performance. Furthermore, for researchers and academicians, this study would help them expose serious areas in the capital structure and financial performance that many researchers were not able to discover. Thus, this study would contribute and fill the research gape in the literature of corporate finance.

Scope of Study

The financial managers face troubles to take appropriate decision whether to choose debt or equity, so called capital structure of firm. It is tough for them to make an optimal capital structure. However, the financial performance mainly depends on suitable setting of capital structure. The outcomes of this study will be very supportive for financial managers of listed manufacturing firms of Pakistan. Pakistan being a developing nation have strong need to expand industrialization. Although, firms can't be expanded unless their financial performance not be increased. And better financial performance mainly depends on suitable decisions in capital structure of firm. This study is most important for financial managers of Pakistan as the outcomes would suggest that decisions to capital structure himself may not good enough to increase firm performance. However, the decisions to capital structure may not be successfully made unless managers not be able to drag appropriate picture regarding corporate decisions (Dividend Policy).

Research Question

This study intended to fill the research gap in the existing literature of corporate finance. Furthermore, the study would address the following research Question.

- Does capital structure have a direct positive significant impact on financial performance of listed manufacturing firms of Pakistan?
- Does the impact of capital structure on financial performance of listed manufacturing firms of Pakistan has an indirect effect and intervened by Dividend Policy decision?

Research Objectives

This study consists of following General and Specific objectives.

General Objective

The general objective of this study is to investigate the intervening effects of dividend policy decisions on the relationship between capital structure and financial performance of listed manufacturing firms of Pakistan.

Specific Objectives

- To explore direct effect of capital structure on financial performance of listed manufacturing firms of Pakistan.
- To find the intervening effect of divided policy decision on the relationship between capital structure and financial performance of listed manufacturing firms of Pakistan.

Literature Review & Hypotheses

Capital Structure

A chain contains several locks, however whole chain may shatter in the absence of a single lock. The nature of capital structure is same like a chain. Capital structure covers several components like long & short-term debt, common & preferred equity, hybrid equity and retained earnings. Therefore, it sometime denoted as multi-layered mixture of debt & equity. According to Gangeni, (2006) firm's real investment

shall be financed with comprehensive structure of financing that do earn maximum return having minimal risk. However, firms evaluate both short and long run investment, the projects having higher NPVs, timely payback period and nominal required return considered to be financed time to time from internal & external source like debt, equity and retained earnings (Parmasivan & Subramanian, 2009). Choice in financing measured as tough for financial managers to make right plan for capital structure. Consequently, there shall be "optimal capital structure". According to Gitman and Zutter, (2012) corporate finance mainly works to maximize value of firm and target to achieve optimal capital structure is from one of the crucial measures of firm's value. A criterion to target capital structure in necessary for optimal financing (Brigham, 2011). Moreover, decisions to target assortments of debt and equity, time frame of debt, situation of financial market, requirements to working capital, strategic investment (Short/long run) and dividends pay-out depend on firm's level of capital structure (Brigham, 2011). In nutshell, capital structure is most significant element of balance sheet which is interconnected to several components of balance sheet. Therefore, whole financial performance of firm depends on right decision to capital structure. Furthermore, this study explains in brief some questions regarding capital structure like, what is optimal capital structure and how it would become valuable for firms?

Optimal Capital Structure

According to Parmasivan and Subramanian, (2009) firms consider a capital structure on optimal level when suitable mix of debt and equity reaps benefit to uplift intrinsic value or firm's value. However, intrinsic value can only be increased while controlling the cost on acquired capital. Hence, firm's weighted average after tax cost of capital referred as intrinsic measure to drive aggregate firm's value. Certainly, firm's value can be determined by good adjustments in capital structure and firm's weighted average cost of capital (WACC), nonetheless firm's vale also depends on availability of free cash flows (Asaf, 2004). Moreover, he revealed that big chunk of firm's value can be achieved to have certain equilibrium among cost of capital, time to liquidity, sequential volatility of interest rates and debt maturities. According to Gitman and Zutter, (2012) present value of future stream of cash inflows can be increased by minimizing the cost of capital. They revealed that firm's value is inversely proportionate with the cost of capital. Therefore, 1% decrease in cost of capital may achieve 1% increase in firm's value and vice versa, by lowering the discounting rate, firms could achieve better outcomes in the present value of future cash inflows. Gitman and Zutter, (2012) had illustrated following equation to determine firm's value.

Equation-1

$$v = \frac{EBIT(1-T)}{WACC} = \frac{NOPAT}{WACC}$$

Where; EBIT = Earnings before interest and taxes, T= Percentage of tax, WACC= Weighted Average cost of capital, NOPAT = Net operating profit after tax

Assume for a while that a firm has constant value of NOPAT or EBIT(1-T), in the intervening time by reducing 1% in WACC would tend to lift up firm's value by same percentage. Although, weighted average cost of capital includes cost of debt, cost of preferred equity and cost of common equity. However, cost of debt has advantage of tax saving (Tax shield) which pushes downward pressure to aggregate WACC. Moreover, cost on preferred stock contains a fixed percentage of preferred dividends, firms offer lower rates

on preferred stock because they enjoy fixed percentage of return. The most expensive cost of capital is common dividend, as this stock is riskier over other securities so firms have to pay high yields to common stock holders. In nutshell, firms adopt strategies to reduce WACC to make an optimal capital structure and better financial performance. Furthermore, in the next heading Gitman's value concept is interpreted by graphical manner.

Franco Modigliani & Merton Miller (1958) Theorem

In 1958, the most influential paper "The Cost of Capital Structure, Corporate Finance & Theory of Investment" was written by Professor Franco Modigliani & Professor Merton Miller. It was considered two most persuasive propositions that had significant contribution in the literature of corporate finance. Therefore, in almost all books of finance it is being published to introduce this instigating concept of capital structure. They introduced two propositions. The first one is about no tax world it is somehow called as unrealistic proposition (Kajananthan & Nimalthasan, 2013). Second one refers to effects of taxes which was introduced right after five years by Modigliani & Miller, 1963 and titled as "Corporate Income Taxes and the Cost of Capital: A Correction", and later on Miller alone (Without Modigliani) carried out a second research paper having specific effects of corporate and personal tax. In nutshell, MM capital structure theorem gave birth to a most crucial area of firm's balance sheet which effects firm's performance in positive/negative manner. A good decision in capital structure impacts positive financial performance and vice versa (Badar& Saeed, 2013).

Capital Structure and Financial Performance

According to Altman, (1984) there are to major benefits associated with debt financing. First one is tax advantage and second is minimum cost. Although, tax savings and less burden of cost increases the FCFs which results to simultaneous increase in the firm's value, hence firms with debt financing could have better financial performance. Contrary, Karandenzin, (2009) argued that more leverage can put a firm in the insolvency risk. Therefore, financial managers of firm should have target debt ratio where they observe the breakeven point, however, over debt ratio reduces the confidence on investors and they consider firm at riskier part. Therefore, optimal level of leverage manages both ends of risk and return (Karadenzin, 2009). According to Myers, (1984) every firm has three stages of financing. First, financial managers prefer to finance from retained earnings (Internal Source). However, if firms have insufficient balance of retained earnings then they like to borrow from outside (External source) in shape of leverage, second stage. Lastly, a last resort for firm is to issue shares in stock market to collect funds from equity section (Shareholder's fund) as third stage. According to Donaldson, (1961) in good financial performance firms give preference to internal financing (retained earnings) and after that they move for borrowings (External financing). Signalling theory suggests good/bad indicators at both ends of capital structure (Debt/Equity). Issuance of debt considered to be good among investors, it signals that firm's financial position is strong. Consequently, it raises the confidence level among investors as they thing that firm would pay timely interest payments and redemptions as well (Berk & DeMarzo, 2007). However, issuance of fresh shares in IPO signal overvaluation of shares and it reduces the confidence level of shareholders (Berk & DeMarzo, 2007). Moreover, the literature shows significant evidences on capital structure and its impact on financial performance of firms. Moreover, the citations would also explain that what time frame, sample size and inferential tools researchers have used to proof the relationship of capital structure and financial

performance. However, reader can understand that this study kept uniqueness in time frame, sampling and the way this study has used the statistical techniques. Thou, this study has developed the hypothesis on capital structure on the basis of following empirical evidences.

Reheman et al., (2007) conducted a panel study on manufacturing firms of Pakistan. They sample 94 firms listed at Islamabad Stock Exchange (ISE) and six years (1999-2004) data collected from the official websites of listed firms. A positive and significant relationship between capital structure and firm's performance were observed. An enormous study was conducted in Iran by pouraghajan et al., (2012) considering the sample of 400 manufacturing firms from 12 different sectors. Moreover, that study collected data from Tehran Stock Exchange (TSE) and from official websites of sampled firms and investigated a positive and significant relationship between capital structure and firm's performance. There is positive association between capital structure and financial performance, moreover, increase in debt could have more better impact on firm performance due to tax advantage or tax deductibility (Margaritis&Psillaki, 2007). That study also used panel data approach and analysed by inferential statistical techniques like correlation and multiple regression. According to Weill, (2007) a diverse study was conducted on renowned EU industrialist countries like Spain, Italy, Germany, France, Belgium, Norway and Portugal. The study results revealed a significant and positive relationship between capital structure and financial performance among Spain and Italy. However, a significant and negative relationship between capital structure and firm performance was observed in all other countries like Norway, Portugal, Germany, France, Belgium According to Campello, (2007) more of debt tend to build better tangibility in firm and strong tangibility helps firm to increase output which simultaneously increases financial performance of firm Another study has given the preference to debt in overall capital structure and suggested that firms should minimize their shareholders equity to achieve better firm performance (Jang et al., 2008) According to Morodgie & Erah, (2010) and Champion, (2010) there is a positive association between capital structure and firm performance and the study results are consistent with Margariti & psillaki, (2007). An empirical study was conducted in Dhaka including Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE), a strong positive correlation between capital structure and firm performance among 77 sampled listed manufacturing was found (Chowdhury & Chowdhury, 2010). According to Shoaib and Siddiqui (2011) the firm's capital structure has diverse situations to reap the maximum benefit and financial performance like ROA, ROE and ROS are mainly depends on firm's optimal capital structure. The food sector of Pakistan was investigated by Amara & Aziz, (2014) and Khanam et al., (2014). The results of their studies depict increase in the degree of debt decreases firm's financial performance which includes ROE and ROA Tang and Jang, (2007) it observed rigorously that in some cases the relationship between capital structure and firm performance is found Null and few studies investigated negative relationship between them and a large portion of studies revealed a significant and positive relationship between capital structure and financial performance of firms An increase in capital structure tend to have increase the firm's performance and Vice versa (Aman, 2011). According to Park & Jang, (2013) there in positive relation between capital structure and firm performance. Moreover, a nominal use of debt financing controls firm's free cash flows (FCFs) and it results to reasonable increase in financial performance of firms.

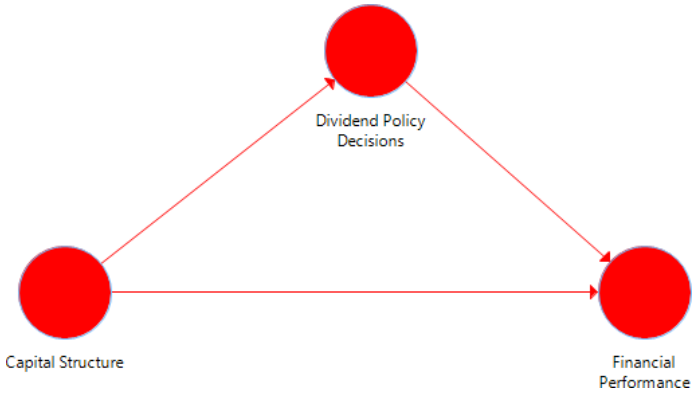
Dividend Policy Decisions

The term dividend refers to the reward for the shareholder (Owner). The term dividend contains common dividends (For common stockholders) and preferred dividends (For preferred stockholders). However, the

term dividend policy reveals the distribution process of dividends among shareholders from the available cash flows (Enekwe, et al., 2015). Dividend policy includes distribution ratio and pay-out ratio. Distribution ratio refers to cash dividends and repurchases and pay-out ratio just offers cash dividends (Uwuigbe, 2012). However, shareholders are willing to reap benefits of dividend yield and capital gain yield. The dividend policy give priority to distribution ratio rather pay-out ratio because it maximizes the wealth of shareholders (Uwuigbe, 2012). According to Priya & Nimalathasan, (2013) financial managers do invest in such projects whose cash flows are in long-run which results a smooth dividend policy and better financial performance. A nominal dividend policy represents stability in dividends pay-out, residual payments and must give opportunities to earn capital gains (Shisia et al., 2014). The concept of residual payments illustrates that a firm decides to pay dividends from that cash inflows which are generated from target revenues and the investment projects give opportunities to pay residual payments (Priya & Nimalathasan, 2013). A stable dividend policy is that one which give constant increase and stationarity in the percentage of dividend yield, simply this would also direct to a stable earning position of firm (Mayech, 2012). Furthermore, mostly firms offer bonus policy to the shareholders when there is high financial performance in the company, this type of policy increase the confidence level of investor to retain and increase the amount of investment in the firm (Shisia et al., 2014). Dividend policy holds good indicators to analyse strength of firm, a good dividend policy just not merely offers dividends but it also indicates the perpetual existence of firm's operation (Enekwe, 2015). According to Turakpe & Fiiwe, (2017) the pay-out in dividend policy is an essential element which computes by dividends to earning per share ratio. The dividend decision in one of the integral parts of corporate decisions which reflects to firm performance and value of firm as well (Enekwe et al., 2015). The amount od dividend is considered as reward for shareholders with certain risk and cost for firm (Khan et al., 2016). Dividend policy and the going concern principle both are directly proportionate because smooth dividend policy refers to strength in company's cash flows (Uwuigbe et al., 2012). MM, (1958) argued that in case of perfect market situation there will no effect of dividend pay-out policy on dividends earned by stockholders. An interesting argument which is termed as "Bird in the hand" suggests that valuation process of dividends is determined by individual preference level of dividend rather expected capital gains (Priya & Nimalathasan, 2013).

Theoretical Framework & Hypotheses

Figure-1



***H_1**:There is significant and positive effect of capital structure on financial performance among listed manufacturing firms of Pakistan from 2015 to 2020. (Huang & Song, 2018)*

***H_2**:There is mediating effect of dividend policy decision on the relationship between capital structure and financial performance of listed manufacturing firms of Pakistan from 2015 to 2020. (Shahwan, 2018)*

Methodology

This research has followed the research design criteria suggested by Emory (1985). The criteria is classified as degree of problem crystallization, method of data collection, researcher's control of variables, purpose of study, time dimension, topical scope and research environment. Considering degree of problem crystallization, formal research was adopted as it tests the hypotheses or answer the research questions posed. This research is based on secondary data collection. In terms of control of variables, Ex post facto design was adopted as it has no control over the variables in sense of being able to manipulate them. Filling up the purpose of study, research is purely causal in nature and longitudinal in terms of time dimension. The topical scope contains statistical and case study. This research has statistical outcomes, hence, it has statistical topical scope. Lastly, this research is field study in considering research environment. This study has 6 years of *time series* (from 2015 to 2020) and 333 *Cross sections.* The longitudinal or panel data was collected from SBP Publication "Financial Statements Analysis Of Manufacturing Companies (Non-financial) Listed at Pakistan Stock Exchange (2020)" and official website of Pakistan stock exchange (2020). Initially, Descriptive statistics was used to check data structure. More specifically, Skewness and Kurtosis was being evaluated. Moreover, PLS-SEM were used to assess the research hypotheses.

Data Transformation

This unit examines features of data transformation with objects and methods of data transformation. Zikmund (1997, p.540) had defined the term data transformation as the course of changing data's original form to a format that is more suitable to perform a data analysis that will achieve research objectives. Zikmund's (1997) definition indicated the purpose of data transformation was to create a more suitable format for data analysis. MS Excel software has been used in the transformation process. Following tables represents proxy measure for each variable.

Proxy Definition for Financial Performance (Dependent Variable)

Table-1

Variable Name	Proxy	Proxy Formula	Citations
Financial	Return on Assets (ROA)	$\frac{\textbf{Net income available to common stockholders}}{\textbf{Total Assets}}$	Yousef Shahwan, 2018; Joliet and Muller, (2013) Al-Taani, (2013) Visic, (2013) Mitani, (2014)
	Return on Equity (ROE)	$\frac{\textbf{Net income available to common stockholders}}{\textbf{Total common equity}}$	Yousef Shahwan, 2018;Pouraghajan et al., (2012) Visic, (2013)

Performance			Nirajini&Priya, (2013)
	Return on Sales (ROS)	$\frac{\textit{Net income available to common stockholders}}{\textit{Total Net Sales}}$	Yousef Shahwan, 2018;Kahle and Shastri, (2005) Voulgaris et al., (2010) Al-Taani, (2013)
Capital Structure	Total Equity Ratio (TER)	$\frac{\textit{Total Common Equity}}{\textit{Total Assets}}$	Yousef Shahwan, 2018; Wippern, 1966; Holz, 2002; Ghosh, 2007
	Short Term Debt Ratio (STDR)	$\frac{\textit{Total Short Term Debt}}{\textit{Total Assets}}$	Yousef Shahwan, 2018; Wippern, 1966; Holz, 2002; Ghosh, 2007; Margrates&Psillaki, 2010; Efni, 2017
	Long Term Debt Ratio (LTDR)	$\frac{\textit{Total Long Term debt}}{\textit{Total Assets}}$	Yousef Shahwan, 2018;Ghosh, 2007; Margrates&Psillaki, 2010; Efni, 2017
Dividend Policy Decision	Dividend Pay-out Ratio (DPR)	$\frac{\textit{Total Dividends}}{\textit{Total Net Income}}$	Farukh et al., (2017) walter, (1963), Khan &Shahid, 2017
	Dividend Yield (DY)	$\frac{\textit{Dividend Per Share}}{\textit{Market Price Per Share}}$	Farukh et al., (2017) walter, (1963), Khan &Shahid, 2017
	Retained Earnings (RE)	$\textit{log}(\textit{Retained Earnings})$	Farukh et al., (2017) walter, (1963), Khan &Shahid, 2017

Data Analysis & Interpretation of Results

Descriptive Statistics

In descriptive statistics, all study variables have been summarized collectively. Financial Performance (Dependent variable) is estimated with its' proxies ROA (Return on Assets), ROE (Return on Equity), and ROS (Return on Sales). Moreover, Capital structure (Independent variable) is estimated with the proxies such as TER (Total Equity ratio), STDR (Short Term Debt ratio), and LTDR (Long term debt ratio). In addition, the theoretical/conceptual framework shows one intervening variable between the relationship of capital structure and financial performance. In this regard, Dividend policy decision (Mediator) is estimated

with its' proxies such as DPR (Dividend Pay-out ratio), DY (Dividend Yield), and RE (Retained earnings). This research has taken longitudinal/panel data approach (includes both time-series and cross-sectional) and chosen a data-wide approach where numbers of cross sections will be more than the structure of time-series. In this connection, this research has taken (N=333) listed manufacturing companies (Cross-sections, 333) and (T= 2015 to 2020) six years of time-series structure. Descriptive statistics shows the columns of Skewness, Kurtosis, Minimum, Maximum, Mean/Average, and Std. Deviation. It should be noted that, firstly, descriptive statistics is separately observes for each economic sector listed under PSX, than, complete descriptive statistics will be examined for all listed economic sectors simultaneously.

Table-2

Variables	***Proxies***	***Min***	***Max***	***Mean***	***St. Dev.***	***Skewness***		***Kurtosis***	
						Stat.	***Std. Error***	***Stat.***	***Std. Error***
Capital Structure (CS)	TER	.44	.79	.65	1.30	2.38	.31	1.10	.28
	STDR	.29	.65	.78	1.42	1.66	.31	1.29	.28
	LTDR	.29	.88	.78	.92	2.10	.31	-1.12	.28
Dividend Policy Decisions (DPDs)	DPR	.10	.24	.18	.78	-1.01	.31	1.31	.28
	DY	.06	.17	.15	.39	1.58	.31	-1.90	.28
	RE	.21	.38	.31	.75	1.27	.31	-1.03	.28
Financial Performance (FP)	ROA	.14	.76	.64	1.55	2.10	.31	1.99	.28
	ROE	.23	.89	.34	1.34	-1.83	.31	1.65	.28
	ROS	.29	.92	.55	16.4	1.01	.31	1.91	.28

TER=Total Equity Ratio, STDR= Short Term Debt Ratio, LTDR= Long Term Debt Ratio, DPR= Dividend Payout Ratio, DY= Dividend Yield, RE= Retained Earnings, ROA= Return on Assets, ROE = Return on Equity, ROS= Return on Sales.

Table-2 shows the descriptive statistics for aggregate manufacturing sector listed in PSX. It is observed that these sectors are categorized as Textiles (Spinning, Weaving, Finishing and textiles, Made-up textiles articles, Other textiles), Sugar, Food, Chemicals, Chemical products and Pharmaceuticals , General Manufacturing, Mineral Products, Cement, Motor vehicles, trailers and auto parts, Fuel & Energy, Information, Communication & transport services, Coke and refined petroleum products, Paper, paperboard and products, Electrical machinery and apparatus, and Other services activities . Table-2 shows that capital structure contains the proxies TER, STDR, LTDR, Dividend policy decisions made-up with DPR, DY, RE and financial performance is estimated with proxies of ROA, ROE, and ROS. It should be noted here in each sector the same proxies for each variables will be used. The mean and Std. deviation of textile sector shows good relevancy. Actually, Std. deviation shows the data point with high and low std. dev. The deviation close to zero indicates the relevancy to the mean score and high std. deviations that the data is more spread out from the points. Low std. deviations reflects the clustering of data around the mean. Table-2 shows suitable mean and std. deviation score for each variables. Furthermore, construct is observed with indicator (proxy) and these indicators are also observed with the Skewness and Kurtosis. In this regard, Skewness is a metric for symmetry, or more specifically, for the absence thereof. If a distribution, or data set, is symmetric to the left and right of the center point, it is said to be symmetric. On the other side,

Kurtosis is a measure of how heavy-tailed or light-tailed data are in comparison to a typical distribution. The threshold for skewness and kurtosis, if data is skewed and peaked by +2 and -2 than it would be considered as normal (Hair et al., 2010). Therefore, Table-2 shows that data has suitable normality outcomes for skewness and kurtosis.

Correlation Analysis

Correlation Analysis: All Listed Manufacturing Firms of Pakistan

Table-3

		ROA	ROE	ROS	TER	STDR	LTDR	MBAR	MBVE	CATAR	DPR	DY	RE
ROA	Pearson Correlation	1	.699**	.702**	.582**	.636**	.394**	.666**	.302**	.533**	.596**	.532**	.366**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
ROE	Pearson Correlation		1	.697**	.432**	.545**	.340**	.511**	.433**	.399**	.545**	.555**	.411**
	Sig. (2-tailed)			.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
ROS	Pearson Correlation			1	.400**	.390**	.415**	.330**	.290**	.504**	.490**	.517**	.330**
	Sig. (2-tailed)				.000	.000	.000	.000	.000	.000	.000	.000	.000
TER	Pearson Correlation				1	.692**	.532**	.266*	.204*	.400**	.412**	.339**	.433**
	Sig. (2-tailed)					.000	.000	.052	.080	.000	.000	.000	.000
STDR	Pearson Correlation					1	.545**	.242**	.390**	.436**	.550**	.577**	.333**
	Sig. (2-tailed)						.000	.000	.000	.000	.000	.000	.000
LTDR	Pearson Correlation						1	.321**	.514**	.492**	.596**	.388**	.555**

	Sig. (2-tailed)						.000	.000	.000	.000	.000	.000
DPR	Pearson Correlation									1	.545**	.622**
	Sig. (2-tailed)										.000	.000
DY	Pearson Correlation										1	.511**
	Sig. (2-tailed)											.000
RE	Pearson Correlation											1
	Sig. (2-tailed)											

** 0.01 level (2-tailed). *0.05 level (2-tailed).

TER=Total Equity Ratio, STDR= Short Term Debt Ratio, LTDR= Long Term Debt Ratio, DPR= Dividend Payout Ratio, DY= Dividend Yield, RE= Retained Earnings, ROA= Return on Assets, ROE = Return on Equity, ROS= Return on Sales.

It is necessary to observe a collective figure of correlation analysis. In this connection, Table-3 shows that ROA has a positive correlation with ROE (r=.69, p<.001) and ROS (r=70, p<.001). Moreover, ROA has a significant and positive size of association with TER (r=.58, p<.001), STDR (r=.63, p<001), LTDR (r=.39, p<.05), DPR (r=.59, p<001), DY (r=.53, p<.001) and RE (r=.36, p<.05). Moreover, ROE has a positive association with ROS which means having increase ROE bring up a simultaneous positive change in ROS. The r-statistics shows .69 with .001 level of significance. In the same way ROE has positive association with TER (r=.43, p<.001), STDR (r=.54, p<001), LTDR (r=.34, p<.001), DPR (r=.54, p<05), DY (r=.55, p<.001) and RE (r=.41, p<.05). ROS has the r-static .40 with TER at .001 level of significance, hence there is positive Pearson movement between ROS and TER. ROS has also positive movement with STDR (r=.39, p<001), LTDR (r=.41, p<.05), DPR (r=.49, p<001), DY (r=.51, p<.001) and RE (r=.33, p<.05). Furthermore, it is observed that TER has also positive and significant association with STDR (r=.69, p<.001). The direction of TER association with other variables are also consistent as positive like LTDR (r=.53, p<.001), DPR (r=.41, p<.001), DY (r=.33, p<.001) and RE (r=.43, p<.05). The intensity of association between STDR and LTDR is positive (r=.54, p<.001). The STDR is representing the same positive association with other proxies like DPR (r=.55, p<.001), DY (r=.57, p<.001) and RE (r=.33, p<.05). In addition, LTDR has positive association with DPR (r=.59, p<.001), DY (r=.38, p<.001) and RE (r=.55, p<.05). Finally, Dividend yield (DY) has a positive association with retained earnings (RE). The r-static revealed .51 at .001 level of significance.

Partial Least Square-Structural Equation Modelling (PLS-SEM)

This research has chosen PLS-SEM (or VB-SEM) as best fit to assess the hypotheses of this study. The robustness of PLS-SEM is famous because it gives easiness to understand the both measurement and structural part simultaneously. The conceptual/Theoretical framework (see chapter-2) shows four variables. These four variables are capital structure (independent variable), dividend policy decisions (mediating variable), and financial performance (outcome/dependent variable). The model shows mediating effect on the relationship between capital structure and financial performance. All these variables represent formative concept of constructs. Each variable is being formatively estimated with three measured proxies (see proxy details). Based on theoretical and conceptual groundings it was proposed that capital structure has significant and positive effect on the financial performance among listed manufacturing firms of Pakistan. In addition, it was also hypothesized that dividend policy decisions intervene in the relationship between capital structure and financial performance. Which means to propose that capital structure has emphasizing effect on financial performance through dividend policy decisions. Therefore, assessment of these hypotheses have been observed by using the PLS-SEM. It should be noted here that mediation mechanism has been followed as suggested by Sobel (1982), where, mediation can be proved/disproved based on t-statistics and significance of total specific effect (Hairt et al., 2019). Furthermore, this study has used MIMIC (multiple indicators multiple causality) approach. This approach is very useful to assess the model based on panel/longitudinal data. This research has conclude the theoretical/conceptual model in three stages/phases. In the very first stage, the formative model using the concept of MIMIC to assess the direct effect (Capital structure → financial performance) as suggested by Sobel (1982). If the relationship between the variables found significant than the next phase will be performed which is to assess the intervening effect of dividend policy decisions separately. As a result, PLS-SEM evaluates the measurement model in order to ascertain the reliability and validity of all latent variables used in the structural model. To accurately estimate the measurement model's reliability and validity, a distinction must be made between formative and reflective indicators. When it comes to reflective indicators, it is essential to check item reliability, construct reliability, convergent validity, and discriminant validity. Although loadings are misleading in the case of formative indicators, since correlation between indicators within a construct is not necessary or considered when estimating the construct parameter, there is no need to check item reliability. Comparing loadings between indicators within a construct makes no sense, obviating the need for internal consistency. According to Rossiter (2002) and Diamantopoulos and Siguaw (2006), no dimensionality or reliability tests should be conducted on formative indicators since factorial unity and internal consistency are irrelevant, and therefore the composite reliability measure Cronbach's Alpha is not desirable. Although Andreev, Core, Maoz, and Pliskin (2009) conclude that construct reliability of formative indicators should be assessed using the Variance Inflation Factor (VIF) Multicollinearity test and indicator validity assessed using their statistical significance, The weight of each indicator should be considered when interpreting a construct with formative indicators (Chin, 1998). As with canonical correlation (multivariate statistical model), these weights allow comprehension of each indicator's contribution to the emergence of the construct. However, prior to running the structural model, the possibility for multicollinearity should be eliminated (Diamantopoulos and Winklhofer, 2001).

Capital Structure and Financial Performance (CS→FP)

Figure-2: Total Effect of CS and FP

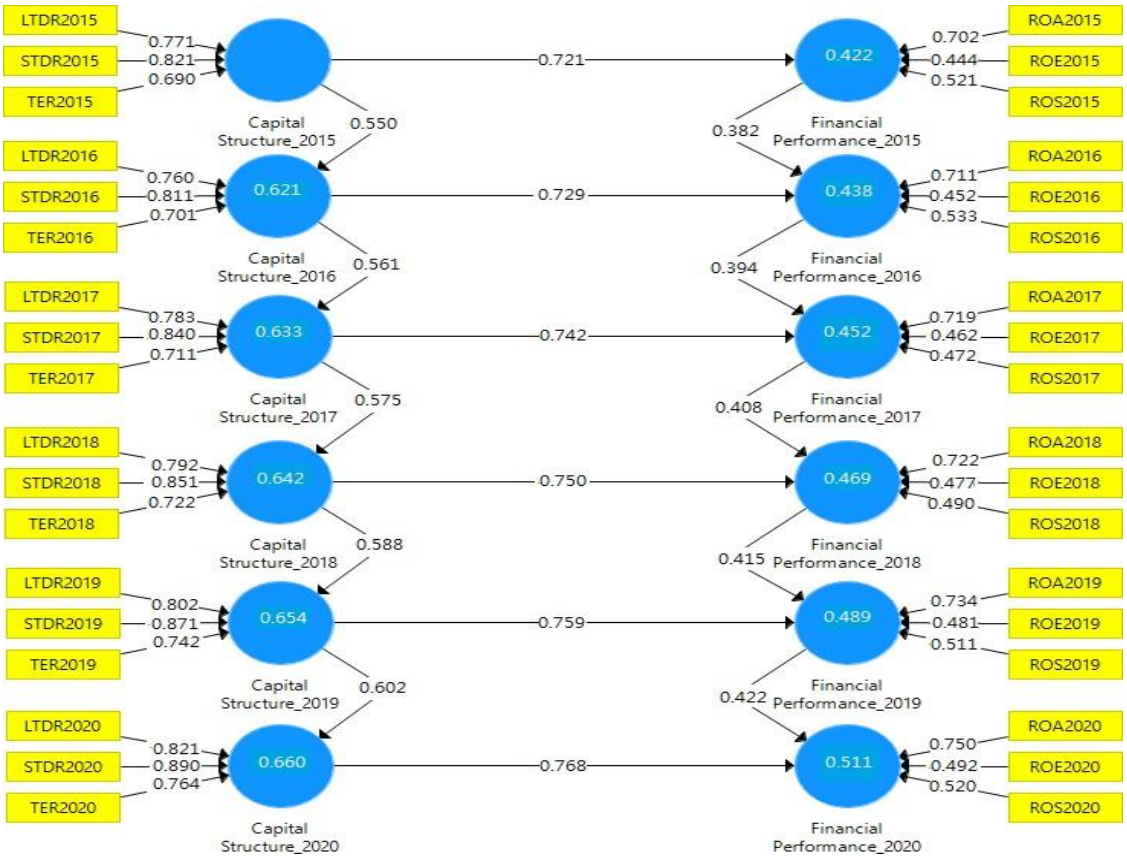


Table-4: CS→ FP

Structural Model			
Inner Model	**Original Sample (O)**	**P-Value**	**R-Square**
CS_2015 → CS_2016	0.550	0.000	0.621
CS_2016 → CS_2017	0.561	0.000	0.633
CS_2017 → CS_2018	0.575	0.000	0.642
CS_2018 → CS_2019	0.588	0.000	0.654
CS_2019 → CS_2020	0.602	0.000	0.660
FP_2015 → FP_2016	0.382	0.000	0.438
FP_2016 → FP_2017	0.394	0.000	0.452
FP_2017 → FP_2018	0.408	0.000	0.469
FP_2018 → FP_2019	0.415	0.000	0.489
FP_2019 → FP_2020	0.422	0.000	0.551
CS_2015 → FP_2015	0.721	0.000	0.422
CS_2016 → FP_2016	0.729	0.000	0.438
CS_2017 → FP_2017	0.742	0.000	0.452
CS_2018 → FP_2018	0.750	0.000	0.469
CS_2019 → FP_2019	0.759	0.000	0.489
CS_2020 → FP_2020	0.768	0.000	0.551

Formative Measurement Model		
Outer Model	Outer Weights	P-Value
LTDR_2015 → CS_2015	0.771	0.000
STDR_2015 → CS_2015	0.821	0.000
TER_2015 → CS_2015	0.690	0.000
LTDR_2016 → CS_2016	0.760	0.000
STDR_2016 → CS_2016	0.811	0.000
TER_2016 → CS_2016	0.701	0.000
LTDR_2017 → CS_2017	0.783	0.000
STDR_2017 → CS_2017	0.840	0.000
TER_2017 → CS_2017	0.711	0.000
LTDR_2018 → CS_2018	0.792	0.000
STDR_2018 → CS_2018	0.851	0.000
TER_2018 → CS_2018	0.722	0.000
LTDR_2019 → CS_2019	0.802	0.000
STDR_2019 → CS_2019	0.871	0.000
TER_2019 → CS_2019	0.742	0.000
LTDR_2020 → CS_2020	0.821	0.000
STDR_2020 → CS_2020	0.890	0.000
TER_2020 → CS_2020	0.764	0.000
ROA_2015 → FP_2015	0.702	0.000
ROE_2015 → FP_2015	0.444	0.000
ROS_2015 → FP_2015	0.521	0.000
ROA_2016 → FP_2016	0.711	0.000
ROE_2016 → FP_2016	0.452	0.000
ROS_2016 → FP_2016	0.533	0.000
ROA_2017 → FP_2017	0.719	0.000
ROE_2017 → FP_2017	0.462	0.000
ROS_2017 → FP_2017	0.472	0.000
ROA_2018 → FP_2018	0.722	0.000
ROE_2018 → FP_2018	0.477	0.000
ROS_2018 → FP_2018	0.490	0.000
ROA_2019 → FP_2019	0.734	0.000
ROE_2019 → FP_2019	0.481	0.000
ROS_2019 → FP_2019	0.511	0.000
ROA_2020 → FP_2020	0.750	0.000
ROE_2020 → FP_2020	0.492	0.000
ROS_2020 → FP_2020	0.520	0.000
Variance Inflated Factor (VIF) Statistics		
Formative Indicator	**VIF**	
LTDR_2015	1.643	

LTDR_2016	1.111
LTDR_2017	1.018
LTDR_2018	1.230
LTDR_2019	1.991
LTDR_2020	1.643
STDR_2015	2.205
STDR_2016	1.729
STDR_2017	1.034
STDR_2018	1.180
STDR_2019	2.243
STDR_2020	2.205
TER_2015	1.913
TER_2016	1.719
TER_2017	1.027
TER_2018	1.105
TER_2019	1.218
TER_2020	1.913
ROA_2015	1.562
ROA_2016	1.847
ROA_2017	1.643
ROA_2018	1.112
ROA_2019	1.675
ROA_2020	1.020
ROE_2015	1.394
ROE_2016	1.057
ROE_2017	1.913
ROE_2018	1.719
ROE_2019	1.537
ROE_2020	1.032
ROS_2015	1.144
ROS_2016	1.917
ROS_2017	2.205
ROS_2018	1.729
ROS_2019	1.181
ROS_2020	1.017
Model Fit Indicators	
SRMR	0.021
NFI	0.921

SRMR should be less than 0.08 0r 0.10, NFI >.89 or >.90 (Henseler et al., 2014; Bentler and Bonett,1980),

The above figure and table shows the total effect of capital structure on financial performance. The model formation was based on the concept of MTMM (Multi-trait multimethod modelling) and MIMIC (Multiple

indicatiors and multiple causality) as suggested by (Sarstedt and Mooi, 2019). This typle of modelling with secondary data can be handled and operationalized with PLS-SEM. Thus, the above figure shows the output of the model. In the PLS output, it can be obereved that capital structure and financial performance are obserevd at multiple points/traits/times and each latent construct has a formative measurment assessment. This multiple trait analysis is necessary to determine the consistency of data. This study is completely based on secondary data and collected a panel data which includes both times series and cross-sectional features. Therefore, MTMM modelling offers to understand the data consistency at each point of time. In this regard, it is seen that the path coeffiecient from CS_2015 to 2020 are consistent and increased with a trending point from 2015_2020. In addition, same output is oberved for financial perforamnce from 2015_2020. Therefore, it can be concluded from the consistency of path coeffient among the different traits that data is normal (staitionary) and has not effected with any sudden economic shock (internal/external). Moreover, the impact of capital structure on financial performance is also obsereved following the multiple trait and causility approach. It is observed that there is a consistent positive effect of capital structure on financial perfomance from 2015 to 2020 among the manufacturing firms of Pakistan. Each indicators is formatively estimated, and its is discussed in the chapter four that when assessing the formative constructs using secondary data so it is neccearry to have multicollinearity assessment. In this connection, the mesured variables for capital structure like LTDR, STDR, and TER is oberved with VIF statistics where we come to know that there is no issue of multicollinearity. In addition, th measured variables of financial performance such as ROA, ROE and ROS were also observed with no multicollinearity. As we know that these measured variables show the outer model, so it is seen the each of these measured variables has suitable outer weights which brings greater ability to explain the model with the help of R square. Last but not least, the model fit indicators like SRMR (Standardized Root Mean Square) and NFI (Normed fit index) shows goodness of fit of the mode. The values of SRMR was 0.021 and NFI 0.921. Hence, it was a good model fit, based on these statistical outcomes the HYPOTHESIS 1 (H1) has been retained and consistent with previous literature.

Figure-3: Total Effect Estimation of CS and FP (Averaging the Proxies)

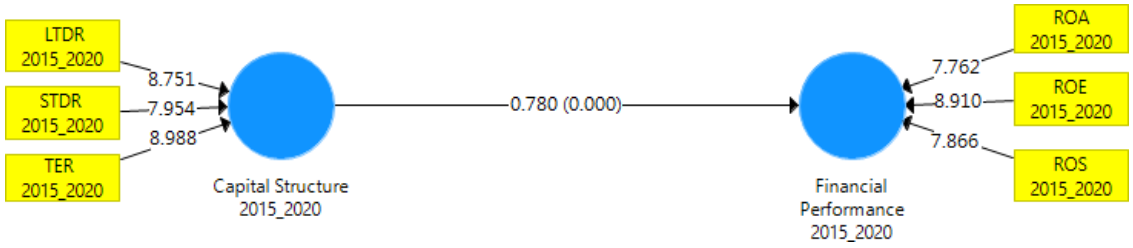


Table 4: Average Total Effect CS→ FP

Structural Model		
Inner Model	**Original Sample (O)**	**P-Value**
CS 2015_2020 → FP 2015_2020	0.780	0.000
Formative Measurement Model		
Outer Model	**T- Statistics**	**P-Value**

LTDR_2015_2020 → CS_2015_2020	8.751	0.000
STDR_2015_2020 → CS_2015_2020	7.954	0.000
TER_2015_2020 → CS_2015_2020	8.988	0.000
ROA_2015_2020 → FP_2015_2020	7.762	0.000
ROE_2015_2020 → FP_2015_2020	8.910	0.000
ROS_2-15_2020 → FP_2015_2020	7.866	0.000
Model Fit Indicators		
SRMR	0.036	
NFI	0.951	

SRMR should be less than 0.08 0r 0.10, NFI >.89 or >.90 (Henseler et al., 2014; Bentler and Bonett,1980),

The same model was again assessed to test the statistical significance. The statistical significance was checked by operationalizing PLS bootstrapping. After running bootstrapping, total effect shows that capital structure has .780 positive and significant (0.001 level) effect on financial performance. Moreover, the outer weights of capital structure is now observed with their t-value like LTDR, STDR, and TER shows 8.75, 7.95, 8.98 respectively. The t-values for ROA, ROE, and ROS were 7.762, 8.910, 7.86 respectively. The outcomes for measurement model shows the immense statistical significance. The model fit indicators have shown a good model fit, SRMR (0.036) and NFI (0.951). This results finally conclude that the optimal level of capital structure, means appropriate mix of debt and equity help financial managers to increase the financial performance. Simply, if they target a suitable level of capital structure and utilized that source efficiently so it brings more prosperity in the firm and the performance indicators like return on assets, return on equity, and return on sales will be greatly increased. Hence, based on these statistical outcomes the HYPOTHESIS 1 (H1) has been retained and is consistent with previous literature.

Capital Structure, Dividend Policy Decisions, Financial Performance

Figure-4: Multiple Specific Indirect and Direct Effects

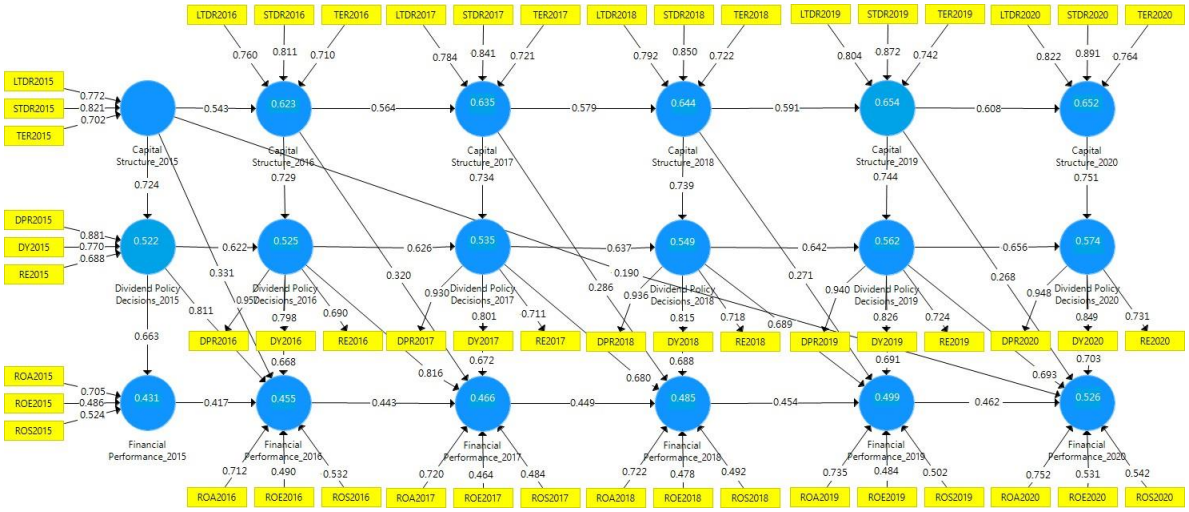


Table-5: Indirect and Direct Effects

Structural Model			
Inner Model	**Original Sample (O)**	**P-Value**	**R-Square**
CS_2015 → CS_2016	0.543	0.000	0.623
CS_2016 → CS_2017	0.564	0.000	0.635
CS_2017 → CS_2018	0.579	0.000	0.644
CS_2018 → CS_2019	0.591	0.000	0.654
CS_2019 → CS_2020	0.608	0.000	0.652
FP_2015 → FP_2016	0.417	0.000	0.455
FP_2016 → FP_2017	0.443	0.000	0.466
FP_2017 → FP_2018	0.449	0.000	0.485
FP_2018 → FP_2019	0.454	0.000	0.499
FP_2019 → FP_2020	0.462	0.000	0.526
DPDs_2015→ DPDs_2016	0.622	0.000	0.525
DPDs_2016→ DPDs_2017	0.626	0.000	0.535
DPDs_2017→ DPDs_2018	0.637	0.000	0.549
DPDs_2018→ DPDs_2019	0.642	0.000	0.562
DPDs_2019→ DPDs_2020	0.656	0.000	0.574
CS_2015 → DPDs_2015	0.724	0.000	0.522
CS_2016 → DPDs_2016	0.729	0.000	0.525
CS_2017 → DPDs_2017	0.734	0.000	0.535
CS_2018 → DPDs_2018	0.739	0.000	0.549
CS_2019 → DPDs_2019	0.744	0.000	0.562
CS_2020 → DPDs_2020	0.751	0.000	0.574
DPDs_2015 → FP_2015	0.663	0.000	0.431
DPDs_2016 → FP_2016	0.668	0.000	0.455
DPDs_2017 → FP_2017	0.672	0.000	0.466
DPDs_2018 → FP_2018	0.688	0.000	0.485

DPDs_2019 → FP_2019	0.691	0.000	0.499
DPDs_2020 → FP_2020	0.703	0.000	0.526
CS_2015 → DPDs_2015 → FP_2016	0.587	0.000	N/A
CS_2016 → DPDs_2016 → FP_2017	0.594	0.000	N/A
CS_2017 → DPDs_2017 → FP_2018	0.499	0.000	N/A
CS_2018 → DPDs_2018 → FP_2019	0.509	0.000	N/A
CS_2019 → DPDs_2019 → FP_2020	0.515	0.000	N/A
CS_2015 → DPDs_2015 → FP_2020	0.587	0.000	N/A
Formative Measurement Model			
Outer Model	Outer Weights	P-Value	
LTDR_2015 → CS_2015	0.772	0.000	
STDR_2015 → CS_2015	0.821	0.000	
TER_2015 → CS_2015	0.702	0.000	
LTDR_2016 → CS_2016	0.760	0.000	
STDR_2016 → CS_2016	0.811	0.000	
TER_2016 → CS_2016	0.710	0.000	
LTDR_2017 → CS_2017	0.784	0.000	
STDR_2017 → CS_2017	0.841	0.000	
TER_2017 → CS_2017	0.721	0.000	
LTDR_2018 → CS_2018	0.792	0.000	
STDR_2018 → CS_2018	0.850	0.000	
TER_2018 → CS_2018	0.722	0.000	
LTDR_2019 → CS_2019	0.804	0.000	
STDR_2019 → CS_2019	0.872	0.000	
TER_2019 → CS_2019	0.742	0.000	
LTDR_2020 → CS_2020	0.822	0.000	
STDR_2020 → CS_2020	0.891	0.000	
TER_2020 → CS_2020	0.764	0.000	
ROA_2015 → FP_2015	0.705	0.000	
ROE_2015 → FP_2015	0.486	0.000	
ROS_2015 → FP_2015	0.524	0.000	
ROA_2016 → FP_2016	0.712	0.000	
ROE_2016 → FP_2016	0.490	0.000	
ROS_2016 → FP_2016	0.532	0.000	
ROA_2017 → FP_2017	0.720	0.000	

ROE_2017 → FP_2017	0.464	0.000
ROS_2017 → FP_2017	0.484	0.000
ROA_2018 → FP_2018	0.722	0.000
ROE_2018 → FP_2018	0.478	0.000
ROS_2018 → FP_2018	0.492	0.000
ROA_2019 → FP_2019	0.735	0.000
ROE_2019 → FP_2019	0.484	0.000
ROS_2019 → FP_2019	0.502	0.000
ROA_2020 → FP_2020	0.752	0.000
ROE_2020 → FP_2020	0.531	0.000
ROS_2020 → FP_2020	0.542	0.000
DPR_2015 → DPDs_2015	0.881	0.000
DY_2015 → DPDs_2015	0.770	0.000
RE_2015 → DPDs_2015	0.688	0.000
DPR_2016 → DPDs_2016	0.957	0.000
DY_2016 → DPDs_2016	0,798	0.000
RE_2016 → DPDs_2016	0.690	0.000
DPR_2017 → DPDs_2017	0.930	0.000
DY_2017 → DPDs_2017	0.801	0.000
RE_2017 → DPDs_2017	0.711	0.000
DPR_2018 → DPDs_2018	0.936	0.000
DY_2018 → DPDs_2018	0.815	0.000
RE_2018 → DPDs_2018	0.718	0.000
DPR_2019 → DPDs_2019	0.940	0.000
DY_2019 → DPDs_2019	0.826	0.000
RE_2019 → DPDs_2019	0.724	0.000
DPR_2020 → DPDs_2020	0.948	0.000
DY_2020 → DPDs_2020	0.849	0.000
RE_2020 → DPDs_2020	0.731	0.000
Variance Inflated Factor (VIF) Statistics		
Indicator	VIF	
LTDR_2015	1.643	
LTDR_2016	1.111	
LTDR_2017	1.018	
LTDR_2018	1.230	
LTDR_2019	1.991	
LTDR_2020	1.643	
STDR_2015	2.205	
STDR_2016	1.729	
STDR_2017	1.034	
STDR_2018	1.180	

STDR_2019	2.243
STDR_2020	2.205
TER_2015	1.913
TER_2016	1.719
TER_2017	1.027
TER_2018	1.105
TER_2019	1.218
TER_2020	1.913
ROA_2015	1.562
ROA_2016	1.847
ROA_2017	1.643
ROA_2018	1.112
ROA_2019	1.675
ROA_2020	1.020
ROE_2015	1.394
ROE_2016	1.057
ROE_2017	1.913
ROE_2018	1.719
ROE_2019	1.537
ROE_2020	1.032
ROS_2015	1.144
ROS_2016	1.917
ROS_2017	2.205
ROS_2018	1.729
ROS_2019	1.181
ROS_2020	1.017
DPR_2015	1.719
DPR_2016	1.027
DPR_2017	1.105
DPR_2018	1.218
DPR_2019	1.913
DPR_2020	1.719
DY_2015	1.729
DY_2016	1.034
DY_2017	1.180
DY_2018	2.243
DY_2019	2.205
DY_2020	1.729
RE_2015	1.562
RE_2016	1.991
RE_2017	1.643

RE_2018	1.987
RE_2019	1.643
RE_2020	1.230
Model Fit Indicators	
SRMR	0.071
NFI	0.925

SRMR should be less than 0.08 0r 0.10, NFI >.89 or >.90 (Henseler et al., 2014; Bentler and Bonett,1980),

The above figure and table shows the output of MIMIC and MTMM modelling. The PLS outcome shows both inner and outer model. Inner model considered the structural part and outer model shows the formative measurement part. It was discussed previously that data is long in nature and considered multiple traits at 6 points (2015 to 2020) which shows that time-series of 6 years. Formerly, study has assessed the total effect (CS→ FP) following the MIMIC and MTMM approach, now, the mediating effect of dividend policy decisions (DPDs) on the relationship between Capital structure and financial performance is observed following the same analytical approaches. The inner part of the model shows that capital structure has consistent positive effect from 2015 to 2020. In this regard, it was observed that CS_2015 has a positive .543 effect on CS_2016, CS_2016 has a positive .564 effect on CS_2017, CS_2017 has a positive .579 effect on CS_2018, CS_2018 has a positive .591 effect on CS_2019, and CS_2019 has a positive .608 effect on CS_2020. This trending position of CS from 2015 to 2020 reflects that data has stability and not effected by any uncertain shock. In the same manner, the consistency of relationship in financial performance from 2015 to 2020 is also observed and the output shows that FP_2015 has 0.417 positive effect on FP_2016, FP_2016 has 0.443 positive effect on FP_2017, FP_2017 has 0.449 positive effect on FP_2018, FP_2018 has 0.454 positive effect on FP_2019, and FP_2019 has 0.462 positive effect on FP_2020. The dividend policy decision is taken as mediating variable and observed at multiple points. The consistency of DPDs from 2015 to 2020 is also observed. In this regard, DPDs_2015 has 0.622 positive effect on DPDs_2016, DPDs_2016 has 0.626 positive effect on DPDs_2017, DPDs _2017 has 0.637 positive effect on DPDs_2018, DPDs_2018 has 0.642 positive effect on DPDs _2019, and DPDs _2019 has 0.656 positive effect on DPDs _2020. After assessing the data stability from 2015 to 2020, now the multiple-mediating effects of DPDs on the relationship between CS and FP is observed from 2015 to 2020. It is necessary to assess the multiple mediating effect as there are different time intervals. It is determined that the direct effects (effect in the presence of mediator) have been reduced after introducing the mediator and but yet they are significant, the level of significance can be seen in the next model, bootstrapping has been used to examine the statistical significance. However, the final effect which is generated from CS_2015→ FP_2020 regressing all the multiple mediating effect has become insignificant in its direct effect. Moreover, the indirect effect (effect through mediator) has been assessed as the specific effect generated by SmartPLS. From the specific effects we can point the mark that whether Dividend policy decisions works as mediator or not. In this regard, CS_2015→DPDs_2015 → FP_2016 has specific effect of 0.587 (0.000), CS_2016→ DPDs _2016 → FP_2017 has specific effect of 0.594 (0.000), CS_2017 → DPDs _2017 → FP_2018 0.499(0.000), CS_2018 → DPDs_2018 → FP_2019 0.509 (0.000), CS_2019 → DPDs _2019 → FP_2020 0.525 (0.000), and finally **CS_2015 → IDs_2015 → FP_2020** has 0.491(0.000) specific effect which reflects that dividend policy decisions mediates the relationship between Capital structure and financial performance among listed manufacturing firms of Pakistan from 2015 to 2020. Hence, HYPOTHESE 2 (H2) has been retained. Moreover, the VIF statistics of each measured variables is

under the minimum suggested threshold (<3). The goodness of fit of the model is also observed with the help of SRMR and NFI. The value of SRMR shows 0.071 and NFI with 0.952.

Conclusion

Capital structure is one of the prevailing issue in the financial environment. Companies give more focus on capital structure because it is the ultimate source which provide financing to firm's operation. Financial mangers devote best of their efforts to reach on the optimal level of capital structure where a firm can minimize weighted average cost of capital and maximizes financial performance. This research has investigated 333 listed manufacturing of Pakistan to assess the effect of capital structure on financial performance. In this regard, a 6 years of timer series (2015 to 2020) were chosen for data collection. The research was explanatory and quantitative. The study outcomes have uniquely contributed in the M&M (1958) capital structure and use of MIMIC modelling as statistical approach in corporate finance. The results confirmed that dividend policy decisions has intervening effect on the relationship between capital structure and financial performance which was previously ignored in the M&M (1958) theory. The comprehensive outcomes of MIMIC modelling shows that by using this statistical approach in corporate finance one can simultaneously determines the path coefficient and stability of data set (Stationary). Consequently, results of this research would be very helpful for corporate financial managers to make strategic financial policy.

References

Abdallah, K.M.A., &Fakhri, S.O. (2013). Impact of cost of capital, financial leverage, and the growth rate of dividends on rate of return on investment an empirical study of Amman stock exchange. *InternationalJournal of Academic Research in Economics and Management Sciences, 2*(4).

Abdullahi, R., &Mansor, N. (2018). Fraud prevention initiatives in the Nigerian public sector: understanding the relationship of fraud incidences and the elements of fraud triangle theory. *Journal of Financial Crime,25*(2).

Akeem, L.B., Terer, B.K., Kiyanjui, M.W., &Kayode, M.A. (2014). Effects of capital structure on firm's performance: Empirical study of manufacturing companies in Nigeria. *Journal of Finance and InvestmentAnalysis, 3*(4), 39-57.

Akinyomi, O.J. (2013). Effect of capital structure on firms performance: Evidence from Nigerian manufacturing company. *International Journal of Innovative Research and Studies, 2*(9).

Altarawneh, H. (2009). The impact of financial ratios in determining the cash dividend policy in Jordanian banks. *Unpublished Ph.D. Thesis.Association of National Accountants of Nigeria*.

Almazari, A.A. (2014), The relationship between working capital management and profitability: Evidence from Saudi cement companies. British Journal of Economics,s Management and Trade, 4(1), 146-157.

Altman, E. (1984). "A further empirical investigation of the bankruptcy cost question". The Journal of Finance, 39, 1067-1089.

ANAN, (2017). Finance and Financial Management. *Printed byNorthern-Printing Press Jos.*

Awan, Z. (2014). Research methodology: Structural equation modelling. *Published by University Sultan Zainal*. Abidin, Gongbadak printing press, Malaysia.

Babalola Y.A. (2014). Triangulation analysis of capital structure and firms' performance in

Nigeria. *East Ukrainian National University [Vol. Dahl] 91034 Lugansk, Ukraine*.

Barton, S.L., & Gordon, P.J. (1988). Corporate strategy and capital structure. *Strategic Management Journal, 9*(6), 623-632.

Bassey, N.E., Aniekan J.A., Ikpe, I.K., &Udo, U.J. (2013). Analysis of the determinants of agricultural science. *Science and Education Centre of North America, 1*(4), 36-47.

Beck, T., Demiguc-Kunt, A. &Maksimovic, V. (2008). Financing patterns around the world: Are small firms different?,*Journal of Financial Economics* 89, 467-487

Baxter, D. (1967). "Leverage, Risk of ruin and the Cost of capital". Journal of Finance, 22 (4), 395-403

Berk, J., &DeMarzo, P. (2007). *Corporate Finance* (Pearson International Edition ed.). Greg Tobin.

Berger, A. N. and Bonaccorsi di Patti (2006), "Capital Structure and Firm Performance: A new Approach to Testing Agency Theory and an Application to the Banking Industry" *Journal of Banking and Finance*, Vol. 30, Issue 4, pp. 1065 – 1102.

Badar, R. & Saeed, A., 2013. "impact of capital structure on performance empirical evidence from sugar sector of pakistan". *European journal of business and management,* Vol. 5(No, 5), pp. 78-86.

Biais, B., &Casamatta, C. (1999). Optimal leverage and aggregate investment. *Journal of Finance, 54*, 1291-1323.

Booth, L., Aivazian, V., Kunt, A.D., &Maksimovic, V. (2001). Capital structure in developing countries. *The Journal of Finance*, 1, 87-130.

Central Bank of Jordan, Annual Reports (2010). Retrieved from www.cbj.gov.jo/page/viewpageaspx?pageID=176

Chashmsayadan, M., Aghajannashtaei, R. (2014), Evaluation the impact of working capital management on firms performance (Case study: Tehran tock exchange). *Asian Journal of Research in Banking and Finance*, 4(5), 27-42.

Coricelli, F., Driffield, N., Pal, S., & Roland, I. (2011). Excess leverage and productivity growth in emerging economies: Is there a threshold effect?*CEPR Discussion Papers 7617, C.E.P.R. Discussion Papers*.

Cornwell, T.B., Pruitt, S.W., & Clark, J.M. (2005). The relationship between major-league sports' official sponsorship announcements and the stock prices of sponsoring firms. *Journal of the Academy ofMarketing Science, 33*(4), 401-412.

Damodaran, A. (2006). *Damodaran on valuation, security analysis for investment and corporate finance*. Edisikedua, John Willey & Son, Inc., New Jersey, USA.

Daoud, H., Al-Fawwaz, M.T., &Arabyat, Y. (2015). The relationship between IT investment levels and bank performance: The case of Jordanian banking sector. *Journal of the Academy of Marketing Science, 42*(3), 202-21

Dekimpe, M.G., &Hanssens, D.M. (2010). Time series models in marketing: Some recent developments. *Marketing Journal of Research and Management, 1*(1), 93-98.

Fee, C.E., Hadlock, C.J., & Pierce, J.R. (2009). Investment, financing constraints, and internal capital markets: Evidence from the advertising expenditures of multinational firms. *Review of Financial Studies, 22*(6), 2361-2392.

Fama, E. F. (1978). The Effects of a Firm's Investment and Financing Decisions on the

Welfare of its Security Holders. *The Modern Theory Of Corporate Finance, 68(3), 22-38*.

Forghani, M., Shirazipour, M., Hosseini, A. (2013), Impact of working capital management on firm's performance. *Journal of Basic and Applied Scientific Research*, 3(7), 943-947

Graham, J., & Harvey, C. (2001). The theory and practice of corporate finance: Evidence from the field. *Journal of Financial Economics , 60*, 187-243.

Ghadome, T. (2008). The decision to finance and its impact on the company's performance: An empirical study on a sample of companies listed on the Amman stock exchange securities. *Journal Jordanian AppliedSciences,* 1-24.

Gitman, L.J. (2003). *Principles of managerial finance,* (International Edition). Pearson Education, Boston. Graham, J.R. (2000). How big are the tax benefits of debt? *The Journal of Finance, 55*(5), 1901-1942.

Hadlock, C.J., & James, C.M. (2002). Do banks provide financial slack? *Journal of Finance, 57*(3), 1383-420.

Hanafi, M.M., & Halim, A. (2005). *Financial statement analysis,* (Second Edition). Yogyakarta, AMP, YKPN.

Harris, M., &Raviv, A. (1991). Capital structure and information role of debt. *Journal of Finance, 57*(2), 521-534.

Hovakimian, A., Hovakimian, G., &Tehranian, H. (2004). Determinants of target capital structure: The case of dual debt and equity issues. *Journal of Financial Economics , 71*, 517-540.

Husnan, S. (2000). The theory and application of financial management, *(Third Edition). Yogyakarta: UPP AMP YKPN*

Jensen, M., &Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360.

Joshi, A., &Hanssens, D.M. (2010). The direct and indirect effects of advertising spending on firm value. *Journal of Marketing, 74*(1), 20-33.

Kajananthan, R., &Nimalthasan, P. (2013). Capital structure and its impact on firm performance. A study on Sri Lankan listed manufacturing companies. *Merit Research Journals Business Management, 1*(2), 37-44.

Khalaf, A. (2013). Capital structure effects on banking performance: A case study of Jordan. *International Journal of Economics. Finance and Management Sciences, 1*(5), 227-233.

Karadeniz E, Kandir SY, Balcilar M, Onal YB (2009) "Determinants of capital structure: evidence from Turkish lodging companies". Int. J. Contemporary Hospitality Management 21(5):594-

K, Riyazahmed. (2012). Determinants of Capital Structure: A Case Study of Automobile Manufacturing Companies listed in NSE, *International Journal of Marketing, Financial Services & Management Research,* 1 (4), 47-52

Khan, A.G. (2012). The relationship of capital structure decisions with firm performance: A study of the engineering sector of Pakistan international. *Journal of Accounting and Financial Reporting, 2*(1), 245-262.

Kochhar, R. (1996). Explaining firm capital structure: The role of agency theory vs. transaction cost economics. *Strategic Management Journal, 17*(9), 713-728.

Korajczyk, R., & Levy, A. (2003). Capital structure choice: Macroeconomic conditions and financial constraints. *Journal of Financial Economics, 68,* 75-109.

Lin, B.W., Lee, Y., & Hung, S.C. (2006). R&D intensity and commercialization orientation effects on financial performance. *Journal of Business Research, 59*(6), 679-685.

Majumdar, S.K., &Chhibber, P. (1999), Capital structure and performance: Evidence from a transition economy on an aspect of corporate governance. *Public Choice, 98*(3-4), 287-205.

Murphy.A&Zoltan,J (1996).An Examination of the Relationship Between Professional Investment Recommendation & stock Prices in European Stock Market. *Journal Of East & West Business*.

Martono, A. (2001). *Financial management* (in Indonesia: ManajemenKeuangan). Faculty of Economics, University of Indonesia, Jakarta.

Masulis, R.W. (1983). The impact of capital structure change on firm value. *The Journal of Finance, 37*(1), 107-126.

Mathur, L.K., &Mathur, I. (2000). An analysis of the wealth effects of green marketing strategies. *Journal of Business Research, 50*(2), 193-200.

McConnell, J.J., &Servaes, H. (1995). Equity ownership and the two faces of debt. *Journal of Financial Economics, 39*(1), 131-157

Miller, M.H. (1977). Debt and taxes. *Journal of Finance, 32*(2), 261-275.

Mitton, T. (2007). Why have debt ratios increases for firms in emerging markets. *European Financial Management, 14*(1), 127-151.

Miyazaki, A.D., & Morgan, A.G. (2001). Assessing market value of event sponsoring: Corporate Olympic sponsorship. *Journal of Advertising Research, 41*(1), 9-15.

Modigliani, F., & Miller, M. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review, 48*(3) 261-297.

Mohammad, M.H.A. (2014). Evaluating the financial performance of banks using financial ratios: A case study of erbil bank for investment and finance. *European Journal of Accounting Auditing and Finance Research2*(2), 156-170.

Muhammad, H., Shah, B., & Islam, Z. (2014). The impact of capital structure on firm performance. Evidence from Pakistan. *Journal of Industrial Distribution and Business, 5*(2), 13-20.

Munir, M.M. (2017). Banks performance and capital structure: Comparative study between Islamic banks and conventional banks. *International Research Journal of Finance and Economics, 160*, 50-62.

Mwangi, L., Makau, M.S., &Kosimbe, G. (2014), Relationship between capital structure and performance of nonfinancial companies listed in the Nairobi Securities Exchange, Kenya. *Global Journal of ContemporaryResearch in Accounting, Auditing, and Business Ethics, 1*(2), 72-89.

Myers, S.C. (2001). Capital structure. *Journal of Economic Perspective*s, *15*(2), 81-102.

Nazri, M.D**.,** Norwani**, N.,** Ahmad, A.M., &Anisah, E. (2016). Does financing decision influence corporate performance in Malaysia? *International Journal of Economics and Financial Issues, 6*(3), 1165-1171.

Nilsen, O.A., Raknerud, A., Rybalka, M., &Skjerpen, T. (2009). Lumpy investments, factor adjustments, and labour productivity. *Oxford Economic Papers*, *61*(1), 104-127.

Noe, T.H. (1988). Capital structure and signalling game equilibrium. *Review of Financial Studies*, *1*(4), 331-355.

Ong, T.S., &The, B.H. (2011). Capital structure and corporate performance of Malaysian construction sector. *International Journal of Humanities and Social Science, 1*(2).

Pratheepkanth, P. (2011), Capital structure and financial performance: Evidence from selected business companies in Colombo Stock Exchange Sri Lanka. *Journal of Arts, Science and Commerce, 2*(2), 171-183.

Ramezanalivaloujerdi, R., Rasiah, D., &Narayanasamy, K. (2015). Corporate capital structure and performance of listed construction companies in Malaysia from 2005-2009. *International Business Management, 9*(3), 191-199.

Riahi-Belkaoni, A (1999), Capital Structure: Determination, Evaluation and Accounting, *Westport, Quorum Books Publisher*.

Riyanto, B. (2001). *Basics of company spending*, (Fourth Edition). Seventh Moulds, BPFE Yogyakarta, Yogyakarta.

Sagara, S. (2015). The analysis of capital structure on financial performance using capital, assets earnings and liquidity ratios in Islamic banks listed on the Indonesia Stock Exchange (IDX) in 2014. *InternationalJournal of Business, Economics, and Law, 8*(1), 53-60.

SaadRiaz, (2015), Impact of capital structure of firm's financial performance: An analysis of Chemical Sector of Pakistan. *Journal of Poverty, Investment and Development, Vol.12*

Shahid Iqbal, Faisal A, Bilal Aziz, (2016), The Impact of Dividend Policy on Stock Prices: Evidence from Pakistan. *Business Review. Vol. 11. No.2*

Semiu, B.A., & Collins, S.O. (2011). Perceived relationship between corporate capital structure and firm value in Nigeria. *International Journal of Business and Social Science, 2*(19).

Siam, W.Z., Khrawish, H.A., & El-Hammoury, B.M. (2005). The capital structure of banking sector in Jordan. *Dirasat, Administrative Sciences, 32*(1).

Soumadi, M.M., &Hayajneh, O.S. (2010). Capital structure and corporate performance empirical study on the public Jordanian shareholdings firms listed in the Amman stock market. *European Scientific Journal,8*(22).

Statman Meir (1988), Investor Psychology and Market Inefficiencies, in Katrina F Sherrerd (Ed.), Equity Markets and Valuation Methods, *The Institute of Chartered Financial Analysts, Charlottesville, Virginia*.

Sukkari, A. (2003). *The determinants of the capital structure in the Kuwaiti capital market*. Master Thesis, Hashemite University, Amman, Jordan.

Titman, S., &Wessels, R. (1988). The determinants of capital structure choice. *Journal of Finance*, *43*, 1-19.

Tariq javed, Waqar, Muhammad Imran, (2014), Impact of capital structure on firm performance: Evidence from Pakistani firms. *International Journal of Academic Research in Economics and Management Sciences, Vol.3,No.5*

Tudose, M.B. (2012), Capital structure and firm performance. *Economic Trans-disciplinary Cognition, 2(15), 76-82.*

Walter, J. E. (1963), Dividend Policy; It Influence on the Value of the Enterprise", *Journal of*

Finance, 1, 280-291

Woldemariam, B.M. (2016). The impact of capital structure on financial performance of commercial banks in Ethiopia. *Global Journal of Management and Business Research, 16*(8).

Wijanarko, Hendro. (2008). Funding Policy Analysis Company And Its Effect on Firm Value (Study on Manufacturing Sector Companies Listed on the Stock Exchange). *Dissertation, University of Brawijaya*.

Woldemariam, B.M. (2016). The impact of capital structure on financial performance of commercial banks in Ethiopia. *Global Journal of Management and Business Research, 16*(8).

Younus, S., Ishfaq, K., Usman, M., &Azeem, M. (2014). Capital structure and financial performance: Evidence from Sugar industry in Karachi Stock Exchange Pakistan. *International Journal of Academic Research inAccounting, Finance and Management Sciences, 4*(4), 272-279.

Yousef Shahwan. (2018). The mediating effect of investment decision and financing decisions on the influence of capital structure against corporate performance: Evidence from Jordanian listed commercial banks. *Academy of accounting and Financial Studies journal, Vol.22*

Zaher, A., &Altahtamoun, F.R. (2014). The causal relationship between financial decisions and their impact on financial performance. *International Journal of Academic Research in Accounting, Finance andManagement Sciences, 4*(2), *72–80*.

Zeitun, R., &Tian, G.G. (2007). Capital structure and corporate performance: Evidence from Jordan. *Australasian Accounting Business and Finance Journal*, *1*, 23-31.

Zeyad, I.R. (2016). Jordanian evidence on the capital structure. *Modern Applied Science, 10*(10).

Zhang, L., & Yu, S. (2016). Research on the capital structure decisions of China logistics industry: Using the unbalanced panel data analysis. *International Journal of Smart Home, 10*(1), 169-180.