

CAPITAL UNIVERSITY OF SCIENCE AND
TECHNOLOGY, ISLAMABAD



**Determinants of Equity
Financing: A Study of
Non-Financial Firms Listed on
Pakistan Stock Exchange**

by

Hamza Manzoor

A thesis submitted in partial fulfillment for the
degree of Master of Science

in the

**Faculty of Management & Social Sciences
Department of Management Sciences**

2020

Copyright © 2020 by Hamza Manzoor

All rights reserved. No part of this thesis may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, by any information storage and retrieval system without the prior written permission of the author.

This work is dedicated to my beloved parents and family members who have encourage me to achieve this milestone. I would also like to dedicate this work to my respected supervisor Dr. Jaleel Ahmed Malik for their support



CERTIFICATE OF APPROVAL

Determinants of Equity Financing: A Study of Non-Financial Firms Listed on Pakistan Stock Exchange

by

Hamza Manzoor

(MMS161020)

THESIS EXAMINING COMMITTEE

S. No.	Examiner	Name	Organization
(a)	External Examiner	Dr. Aijaz Mustafa Hashmi	NUML, Islamabad
(b)	Internal Examiner	Dr. Nousheen Tariq Bhutta	CUST, Islamabad
(c)	Supervisor	Dr. Jaleel Ahmed Malik	CUST, Islamabad

Dr. Jaleel Ahmed Malik

Thesis Supervisor

May, 2020

Dr. Mueen Aizaz Zafar
Head
Dept. of Management Sciences
May, 2020

Dr. Arshad Hassan
Dean
Faculty of Management & Social Sciences
May, 2020

Author's Declaration

I, **Hamza Manzoor**, hereby state that my MS thesis titled “**Determinants of Equity Financing: A Study of Non-Financial Firms Listed on Pakistan Stock Exchange**” is my own work and has not been previously submitted by me anywhere else for taking any degree. At any time if my statement is found to be incorrect even after my graduation, the University has the right to withdraw my MS Degree.

Hamza Manzoor

(MMS161020)

Plagiarism Undertaking

I solemnly declare that research work presented in this thesis titled “**Determinants of Equity Financing: A Study of Non-Financial Firms Listed on Pakistan Stock Exchange**” is exclusively my research work with no remarkable contribution from any other individual. Small contribution/help wherever taken has been dully acknowledged and that complete thesis has been written by me. I understand the zero tolerance policy of the Higher Education Commission and CUST towards plagiarism. Therefore, I as an author of the above titled thesis declare that no part of my thesis has been plagiarized and any material used as reference is properly cited. I undertake that if I am found guilty of any formal plagiarism in the above titled thesis even after award of MS Degree, the University reserves the right to withdraw/revoke my MS degree and that HEC and the University have the right to publish my name on the HEC/University website on which names of students are placed who submitted plagiarized work.

Hamza Manzoor

(MMS161020)

Acknowledgements

First and foremost, I thank Almighty Allah (SWT) without almighty's blessing I would not be able to achieve this. I would like to express my sincere gratitude to my research supervisor **Dr. Jaleel Ahmed Malik** for great deal of support, assistance, guidance and motivation.

It was great privilege and honor to work to under his guidance I would also like to thanks my parents for their unparalleled support and valuable prayers. I would specifically like to thank them for their sacrifices for educating and preparing me for my future.

I would also like to thank my colleagues for their encouragement and support during my research work.

Hamza Manzoor

(MMS161020)

Abstract

This study aims to investigate the determinants of equity financing behavior of the firms that issue secondary equity. For this purpose 14 years data of 75 non-financial firms listed at Pakistan Stock Exchange was employed for the period 2004 to 2017. Panel data analysis was employed to explore the relationship. Fixed Effect model is chosen on the basis of Likelihood ratio. The results suggests that various firm characteristics play important role in determining equity level of the firm. Firm growth and profitability has significant positive relationship with equity ratio, while income volatility has significant negative relationship with equity ratio. Firms in Pakistan should keep in view various firm characteristic regarding equity financing decisions.

Keywords: Equity Financing, Capital Structure, Non-Financial Firms

Contents

Author's Declaration	iv
Plagiarism Undertaking	v
Acknowledgements	vi
Abstract	vii
List of Tables	x
Abbreviations	xi
1 Introduction	1
1.1 Theoretical Background	6
1.2 Problem Statement	8
1.3 Research Questions	8
1.4 Objectives of the Study	8
1.5 Significance of the Study	9
1.6 Plan of Study	9
2 Literature Review	10
2.1 Determinants of Equity Financing Policies	29
2.2 Financial Theories of Capital Structure	31
2.2.1 Pecking Order Theory	32
2.2.2 Trade-off Theory	34
2.2.3 Agency Theory	35
2.3 Hypotheses Development	36
2.3.1 Firm Growth and Equity Ratio	36
2.3.2 Non-Debt Tax Shield and Equity Ratio	37
2.3.3 Uniqueness and Equity Ratio	37
2.3.4 Firm Size and Equity Ratio	37
2.3.5 Profitability and Equity Ratio	38
2.3.6 Income Volatility and Equity Ratio	39
3 Research Methodology	40

3.1	Data Description	40
3.2	Methodology	40
3.3	Panel Data Analysis	42
3.4	Measurement of Variables	42
4	Results	44
4.1	Descriptive Statistics	44
4.1.1	Correlation Analysis	46
4.1.2	Variance Inflation Factor	47
4.2	Diagnostic Test	48
4.3	Results of Fixed Effect Model Showing the Effect of Various Firm Characteristics on Equity Level of the Firms	49
5	Discussion and Conclusion	53
5.1	Conclusion	53
5.2	Recommendation	54
5.3	Future Direction	55
5.4	Limitations	55
	Bibliography	55
	References	56

List of Tables

3.1	Variables Description	43
4.1	Descriptive Statistics	44
4.2	Correlation Matrix	46
4.3	Variance Inflation Factor of Firm Growth, Tax Shield Substitution, Uniqueness, Firm Size, Income Volatility and Profitability	47
4.4	Likelihood Ratio Tests	48
4.5	Hausman Test	48
4.6	Impact of Equity Ratio on Various Firm Characteristics Variables	50

Abbreviations

CEE	Central and Eastern European
CEE	Central and East European
IV	Income Volatility
IPO	Initial Public Offering
KSE	Karachi Stock Exchange
LDC	Less Developed Countries
LN_s	Natural Logarithm of Sales
MM	Modigliani and Miller
NPV	Net Present Value
OLS	Ordinary Least Square
SEO	Seasoned Equity Offerings
SD	Standard Deviation
SBP	State Bank of Pakistan
TFC	Term Finance Certificate
US	United States
WACC	Weighted Average Cost of the Capital

Chapter 1

Introduction

Firms prefer different options for financing of its assets. Firms can use different kind financing such as debt and equity. It can be in the form of bonds, bank loans, leasing financing, and Term finance certificate (TFC) or equity in order to increase firm's market value. This study aims at studying the capital structure of the firms, from the perspective of equity.

Seasoned Equity offering also termed as secondary equity offering refer to the issue of shares on stock market after the Initial Public Offering (IPO), in such case issuance is by the company that was publicly traded previously and is returning back to the market for raising more capital. There are many reasons by the firms to have follow on offering such as raising more money to fund the business operations ,stipulating the business growth ,purchasing land or buildings, purchasing equipment or machinery, paying off its debts, to increase its working capital and recapitalize its business.

Important business decisions in the organization comprise of selecting the adequate funding scheme, determining the best alternative investments and for enhancing the value of the firm among all the investment alternative available. Different financing options are the Debt and the Equity.

From the creditors debt is acquired who expect maximum return on their capital, firms that are financed by the debt has some obligations while the equity is contributed by the investors who are generally shareholders of the firm. Shareholder finance the business in return of a profit and the financial compensation that the

shareholders of the firm will get is dependent on the firm's financial performance. Debt that is acquired by the firm is an obligation and is to be paid whether the performance of the business is good or not. On the other hand the investors of the company are offered the profit up after the Net Income after the debt has been paid. Investors are involved in the operations of the business and it is quite satisfactory for the investors of business.

Utilization of the resources by firms to finance its investment operations come to constitute the capital so that the cost of capital is the least. Return percentage which is demanded by the investors and creditors and proper determination of this cost is helpful in decision making. Capital markets play important role in channeling, mobilizing and funding of the enterprises and are important source of investment in an economy. A well balanced and functional market ensures that both investor and the corporation get or receive the fair prices of the securities, so role of capital market is important in the economic development of a country. In Pakistani equity market, Karachi stock exchange was founded in 1947 is referred as one of the old one stock market in developing economies of the world. More over Karachi Stock Exchange (Now known as Pakistan Stock Exchange) is one of first emerging market stock exchange that was opened for international investors while all the restrictions were lifted.

Capital market development is necessary for the economic growth and while the growth is dependent on the fiscal and legislative frameworks and policies and also on the supply and the demand pattern of the securities. At the initial stage the role of the government in the approval and the authorizing was eradicated.

A study by [Khilji and Nabi \(1993\)](#) in context of Pakistani Stock Market suggests that investors in Pakistani stock market having diversified portfolio of different industries are having same risk as investor with single industry portfolio. Important developments in the stock market was result of the liberalization measures adopted by the government and such steps resulted in the improved channeling of the resources for productive investments.

In the seventies the financial market of the Pakistan was dominated by the governments. Non Securitized financial market and securities market were the two mains

categories of Pakistani Market. Commercial banks, official development financial institutions, modarbas, leasing companies, investment banks are the securitized financial institutions. Securities market is second major category of financial framework.

Financial market development play important role in driving the economic activity (Akhtar, 2006). Main borrowing is from the financial institutions in Pakistani markets (Shah & Khan, 2007). During the 1970 period nationalization policies of the government resulted in the political control of major banks and private companies and it continued until the nineties.

During the period of 1960-1970 when the institutions were not nationalized in Pakistan, various firms issued the corporate debentures and these were listed on the Stock Exchange. A debt security bearing an interest rate is a debenture.

When look from the perspective of capital structure companies can raise long term finance from the usage of the internal source of the finance subject to the availability of the firms in case the funds are not available the to meet the long terms need of finance for new projects, product development, or investment related to the research and development for which huge amount of capital is necessary then external source of the finance is one of the major option for the firms. It may include the acquiring the debt or issue of common stock via seasoned equity offerings to new shareholders or existing shareholders. Seasoned equity offering also termed as secondary equity offerings is issue of the stock by the firm who has already carried out the primary issue.

Information asymmetry is important in any financing decision and it refers to it refers to analysis of transaction in which one party has more authentic and valuable information which can influence an outcome. Internal Information which the managers of the firms have on daily basis help them in selecting best method of financing.

In their study (Mayers & Majluf, 1984) state that managers of the firm have the privileged information and the managers of firms has access to specific information of the firm such as cash flows of the firm, retained earnings, firm sales and the financing need of the firm in future. If managers work in the best interest of the

organization they will invest in such projects which has positive Net Present Value (NPV) & increase firms value. The need of capital in any such projects may be acquired from external source of finance and the higher debt level may be alarming for the existing shareholders of the firm in case tax deductibility of interest on debt is offset by the financial distress risk and bankruptcy in case firm is unable to meet its liabilities.

Theoretical approach of capital structure focuses on the weighted average cost of the capital (WACC) and the value of the company and considered some purposeful relationship between debt ratios and those scenario was developed in perfect markets. However study by Modigliani-Miller Theorem (1958) served as the reference and relaxed restrictions on this hypothesis.

Generally there is consensus that company worth and value can vary with respect to varying tax effects, borrowing and other market imperfection's such as agency cost and financial distress costs. As per trade off Theory information asymmetry in many of the cases is determined and formulated by the structure of the optimal capital that usually offsets cost with the benefits.

Various factors determine the SEO Choice decisions, such as current cash flows, the availability of the debt, and the investment opportunities. Debt is cheaper source of capital because of its tax deductibility and ownership of the members does not dilute as in the case if additional number of the shares are being issued to the stock holders.

The financing decision by the firm's management are important. Lower cost of capital is the responsibility of the corporate financial manager which result in maximizing the wealth of shareholders of the firm.

Theoretical and empirical research by (Modigliani & Miller, 1958) established in their groundbreaking study on capital structure was published. Most of the research work on firm's equity financing behavior is carried out in the advance economies and very little work has been done in the developing economies of the world. It is not sure that the results of empirical and theoretical research studies in the developing economies are valid for economies that are developing ones or various other different factors affect the equity financing decision in the developing

countries? It is also not sure that conclusions from the research study carried at equity financing behavior of the firms are portable across other countries.

Literature suggests that the financing is in the form of different arrangement it can be by the issue of the equity securities or the issue of the debt securities, to seek a bank loan, financing spontaneously, or the utilization of the internal resources by the firm. Financing can be classified in the equity financing and debt financings as per literature ([Machangu, 2003](#)).

Some studies state that there exist optimal mix that results in an increase in the wealth of the shareholder ([Akintoye, 2008](#)). Financing pattern of the firms in the advance countries of the world was firstly explored by the ([Modigliani & Miller, 1958](#)) when the capital structure irrelevance theory is developed, at the basis of certain assumptions that firm value is not dependent on the capital structure. At later stage of their studies some assumptions were relaxed such as corporate tax and they stated that corporate tax rate is important and is not to be ignored because the interest is the tax deductible and it serves as a tax shield to the firms which results in an increased return on the equity.

Another study on the financing patterns of the firms ([Antonioniou, Guney, & Paudyal, 2002](#)) stated firms capital structure is influence and affected by numerous firm characteristics and environment around the firm has also role in the decisions regarding the capital structure and the outcomes i.e. stock market condition has also important role in the financing pattern.

To explore financing behavior in the European countries ([Graham, n.d.](#)) states that there exist variability in determining the financing patterns in the European countries .In this particular study the firms specific variables were growth, age , size and assets.

Pakistan stock exchange is one of the major Stock exchange and has more than thousand companies are listed on it. The area of equity financing behavior is not explored in Pakistan and limited research work is done in this area. Research work of ([Chen, 2004](#)) is extended in this study in context of Pakistani financial market.

1.1 Theoretical Background

Financing decision regarding capital structure are linked to fulfill various stakeholders needs and it represents the claim to the asset of the corporation and includes different liabilities and assets (Riahi-Belkaoui, 1999). Portion of debt and equity in capital structure could be in any form. In the study of (Modigliani & Miller, 1958) various extensions were carried out. It is consensus among various researchers that firms choose optimal debt level on the basis of tradeoff of the advantages of debt financing & cost related to the debt (Krishnan & Moyer, 1997). Firms that are more profitable their dependency on the debt will be lesser in comparison to the firm with less profitability while the firms with higher growth rate carry higher debt to equity ratio. Harris and Raviv (1991); Krishnan and Moyer (1997); Zeitun and Tian (2014). Among benefit in the debt usage tax deductibility is main benefit of debt finance which lowers the cost of the capital (Krishnan & Moyer, 1997).

Formulation of the capital structure by the firms should be like that it will increase in the shareholders wealth and thus achieving optimal capital structure is challenging however efforts should be made for the approximation. There exist difference in the firms in terms of earnings, nature of business, size, risk, competitive condition and the market expectations.

Modigliani & Miller in 1958 first analyzed and presented facts regarding capital structure relevance in their study and they suggested in their study that that the under certain circumstances and conditions the choice between equity and the debt has no affect the firm value according to his point of view there is no relevance of capital structure. Assumption of no taxes, transaction costs and information asymmetry are in this case. However the researchers in detail have given the various explanations regarding the financing choices and decisions of the companies (Harris & Raviv, 1991; Myers, 1984).

Performance measure can be organizational or financial. Measure of performance such as financial profit increase, shareholder wealth increase, profit maximization on the assets and benefits are must for the efficiency of the firm value (Chakravarthy, 1986; Zeitun & Tian, 2014).

[Modigliani and Miller \(1958\)](#) provided detail analysis regarding modern capital structure theory. According to them firm value and capital cost are not dependent on firm capital structure. As per them the investors will use the arbitrage as option to keep and maintain the weighted average cost of the capital constant although there are changes firm earnings. Pecking order theory, Trade off model, market timing models are famously used to describe the capital structure. Trade off model states that firm's balance the cost of debt & equity financing and select the optimal level of leverage where debt cost is equal to the equity.

Agency cost of equity is the conflict between manger & shareholder and on the other hand agency cost of the debt is the conflict that arise between the debt holder and the shareholder this agency relationship was introduced and discussed by both the ([Jensen & Meckling, 1976](#)) in their study and ([Jensen, 1986](#)).

[Myers and Majluf \(1984\)](#) developed the Pecking order theory was developed by Mayers and stated in their study that companies usually select the source of finance from internal to external. If there is information between investors and firms, retained earnings of the firm are initially utilized to finance the projects as first choice and then with riskless debt and then equity.

According to present financial theory when the bankruptcy cost is not present then it would be appropriate that the firm capital structure would be formulated completely on the basis of the debt ([Gardner, 1996](#)). In case if the bankruptcy cost is present then diminishing return would result in more utilization of the debt in firm's capital mix ([Kwansa & Cho, 1995](#)). So it suggests that appropriate mix of the capital exists and further from particular point higher cost of bankruptcy than marginal benefit of tax shield related with further usage of debt as compared to the equity. Firms that are able to maintain a particular capital mix result in lower finance cost thus enhancing the performance of the firm ([Gleason, Mathur, & Mathur, 2000](#)).

1.2 Problem Statement

Equity financing behavior of the firms is not studied excessively in Pakistani market. Majority of research work done in this area is in the emerging economies of the world such as in Chinese Market but in Pakistan little work has been conducted in context of Pakistani market which is completely an emerging market. Local and the foreign investor's intent require that this area of the research be further explored specially and the determinants of the equity financing behavior should be identified.

1.3 Research Questions

Research questions of the study are as follows:

Research Question 1:

What is the impact of firm size on equity ratio?

Research Question 2:

What is the impact of tax substitution on equity ratio?

Research Question 3:

What is the impact of income volatility on equity ratio?

Research Question 4:

Is there any impact of firm growth on equity ratio?

Research Question 5:

What is the impact of profitability on the equity financing behavior?

Research Question 6:

What is the impact of uniqueness on equity ratio?

1.4 Objectives of the Study

Following are the objectives of the study.

Research Objective 1:

To investigate the impact of firms specific characteristics on equity ratio of non-financial firms.

1.5 Significance of the Study

In Pakistan, companies operate in dynamic and uncertain environment for which not only the management of companies need to face consequences of changes but also firms should be financially able to cope up with such changes. No previous work in Pakistan has investigated the determinants of equity financing behavior of firms. Another contribution of this study is that it includes various firm specific variables such as firm growth, non-debt tax shield, uniqueness, firm size, profitability and income volatility.

1.6 Plan of Study

In Chapter 1 Introduction, Theoretical background, Problem statement, Research questions, Objectives of study and significance of research are stated. Chapter 2 includes Literature review of the past studies and the hypothesis of the study. Chapter 3 includes the research methodology of the research study. In 4th chapter Data analysis and results are covered. Chapter 5 covers the conclusion, recommendations, and limitation of current research study.

Chapter 2

Literature Review

Source of financing can be seen on the balance sheet of a firm ([Gitman & Maxwell, 1985](#)). According to a study capital can be of different categories such as the equity ,debt capital and retained profits, family loans and capital ([Romano, Tanewski, & Smyrnios, 2001](#)).

Different sources of the capital according to another study are trade credits, bank loans, owner equity related personal debt and other kind of debt, and equity and loans from the governments ([Gibson, 2002](#)).

A study by another researcher Burns (2001) divided source of finance in two major categories as long term finances in the form of equity from the private investment and money from other people or any other type of finance such as short term finance, short term bank loans and bank overdrafts.

In a study by Marlow (2003) categorize the sources of finance into three types such as public investment (such as loans from the governments) private investments (Funds from the friends and family members and the personal money) and the private equity finance (such as Bank loans, overdrafts).

Difference sources of finance that firms can assess are debt, retained earnings and equity ([Frank & Goyal, 2008](#)). Another Study by ([Irwin & Scott, 2010](#)) suggests that finance sources are personal loans ,loans from the banks ,personal saving and family savings and credit cards ,leasing from different institutions and microfinance organizations and different grants are the sources of finance into the personal and business bank loans, personal saving , hire purchases, credit cards, grants, leasing

, and microfinance.

One of the major determinant of equity issuance decision according to a study is demand of the capital. Seasoned equity offering by the firm can result in the change in the leverage position of the firm .Equity level of the firm is raised if there is seasoned equity offering by the firm as compared to the debt level of the firm keeping the other factors constant which result in change in the leverage level of the firm (Bayless & Chaplinsky, 1996).

Seasoned public offerings by the firm can be in the form of public offerings, right issues and private placements while the right issues is issuance of the additional shares to the existing shareholders of the firm, when the shares are issued to general public it is referred to as public offering and when the shares are issued to private investors it is referred to as private offerings. Trading platform for the investors is provided by the stock exchange where publicly quoted firm or governmental firms can easily offer their securities for the sale to the investors (NZAI, 2014).

The study on the source of funding for Uruguayan firms suggests that the size, tangibility and the profitability are major variables that influence the financial structure as suggested by the theories. Only those firms are less profitable whose source of funding is external while firms having larger tangible assets have an easy access to the banking credit (Munyo et al., 2005).

Various firms in United States select the public offering for raising the capital although there exist floatation costs of right issues, and this phenomenon is often called as equity financing paradox. Several explanations suggest that right offering can be expensive such as in case of capital gains (Smith Jr, 1977) and other shareholders sell cost (Hansen, 1988), variation in the previous ownership of shares (Hansen & Pinkerton, 1982) and cost of the adverse selection (Eckbo & Masulis, 1992).

Equity issues by the firm's capital structure, ownership structure as well composition of the firm assets (Masulis & Korwar, 1986). According to a study reason of the equity offerings by the firm can be financing the investments for the firm, wealth transfer from the current firm shareholders to firm new shareholders and

the other motive to issue equity can be to increase liquidity for insiders as well as for the firm (W. Kim & Weisbach, 2008).

Majority of the firms in the emerging markets are family controlled (La Porta, Lopez-de Silanes, & Shleifer, 1999) and in such cases the family managed and controlled firms strongly oppose the dilution of ownership (Cronqvist & Nilsson, 2005). As during the normal time assets are financed though debt by such firms (Stulz, 1988), and equity issue is carried out only as a last option (Högfeldt & Oborenko, 2005). Debt equity swap occurs mostly in debt restructuring happens for those firms that are in position of financial distress (Kiefer, 2003; Clowry, 2010). In family controlled firms the capital structure is dependent on agency control conflicts. Firms with more control of the family use more debt in this case to reduce the chance of the altruism in the firm and also to limit the concerns for agent of the family and furthermore to use the resources of the family to limit the family self-interest though the benefits and incentives was not able to receive otherwise (Schulze, Lubatkin, Dino, & Buchholtz, 2001).

In family controlled firms the agency cost is higher because they retain the family members who were incompetent in firm's management. Moreover the family firms do not fire the family members that are the incompetent ones because of the personal relationships which will result in decrease in the firm efficiency and will result in higher agency costs (Gomez-Mejia, Nunez-Nickel, & Gutierrez, 2001).

High debt ratio are maintained by the family controlled firms so that they are able to pay the high dividends or to use such cash flows for the personal benefits. In such cases firms pay higher dividends to themselves and they use it for the personal benefit while higher external source of finance is required for such family firms such as debt while the availability of internal sources of the finance is less to meet need of financing (Rubecca Duggal 2010).

Globalization in the 21st century has resulted in the dependence on one another due to technology improvements and changes. Multinational corporations (MNC) play significant part in countries growth. MNC operating in the countries are confronting multiple dynamic factors that can effect the ways on financing. Firms with the larger size as compared to other firms more access to the international

market, less bankruptcy chances suggest that such firms should have higher leverage ratio as compared to domestic firm, while various studies suggest that such firms carry lower debt while fulfilling their financing needs (Lee & Kwok, 1988; Fatemi, 1988).

Research study suggests that the firms with larger size prefer external source of finance in comparison to the developed economies (Singh & Hamid, 1992). Another study find that difference in debt to equity ratio in both the developed economies and the developing economies depends on the macroeconomic environment and policies of the governments, moreover the role of state bank is key in funding of small sized firms and in case regular funds are available there is no need for the external debt (Glen & Pinto, 1994).

Each theory of capital structure has assumptions and no theory clearly states how to formulate clear capital structure (Myers, 2001) firm Growth, asset structure and the company profitability mainly effect the capital mix (Cassar & Holmes, 2003). A study in context of Japanese and Pakistani firms suggest size and industry are factors that determine capital structure. Study also suggests that (Mahmud & Qayyum, 2003). A study on the Chinese firm suggest that firms in china usually follow a particular pecking order more this study also suggest intuitional factors play essential part in the determining the capital structure of firm (Chen, 2004). A study on firms in Ghana suggest that firms in Ghana have 50 percent of debt in capital mix. Firm size and firm growth were the key factors which determine the company's capital structure while other variables such as taxes and profitability of firm, tangibility, risk has negative relationship with firms leverage (Abor & Biekpe, 2005). Negative impact on leverage of variable of market to book ratio, tangibility and profitability of the firm was observed while in case of tax the impact was not significant (Kanwar, 2007).

A study in context of the chemical industry of Pakistan suggest firms in chemical industries prefer equity finance in comparison with debt, while the firm size in addition to the firm growth relationship is as per trade off hypothesis (Rafiq et al., 2008)..In context of Pakistani market a study of firms belonging to the automobile sector show that firm capital mix has negative correlation with the liquidity ,

firms profitability and other variables such as asset tangibility and firm size while the positive correlation with earning variability was observed through the leverage (Masnoon & Saeed, 2014).

Higher debt level give a firm tax shield which ultimately results in the higher tax savings because the interest is deducted from the final income of the company. There is also impact of tax shield on the firms debt while debt increase results in the rise in tax advantage while bankruptcy and financial distress are not considered (Modigliani & Miller, 1963). Very higher debt level results in liquidation, bankruptcy and financial distress according to the tradeoff theory and agency theory. Firm size had negative correlation with the bankruptcy of the firm (Warner, 1977).

Furthermore a study suggest that bankruptcy have negative relationship with the firm size (Hansen, 1988). Analysis of leverage ratio base on market value of stocks and debts depict that costs of bankruptcy has negative relationship with firm size (Warner, 1977).

Another study presents two views regarding the bankruptcy costs first view that bankruptcy cost has more weightage than the benefits of taxes regarding higher leverage level (Altman, 1984) while according to another study in capital mix of firm agency cost is insignificant (Warner, 1977).

Manager act in personal interests instead of interest of shareholders, this relationship underlined through cash flow theory. In detail agency problems are explained through cash flow theory because conflict arise in management and shareholders of the company according to Myers (Spring, 2001).Pecking order theory focused on usage of internal finance that are created form operations of the company while the divined should not be unpaid while there is need of financing the capital expenditures of the company, debt is issued primarily and then equity is issued (Myers, 1984).

Under Net Operating Income approach higher debt result in more risk and financing patters require higher returns. Impact of equity financing was shown on the common stock floats and earning that are retained on capital costs and also on the required rate of returns. To evade bankruptcy firms do not pay dividend in case

firm's current ratio is low. The decisions regarding the retained earnings of the firms are influenced by the taxes on income of stock holders and rate of return that is required. In this study it was assumed that equity cost is larger while the debt costs is lesser one when there are no taxes and no equity and debt cost, whatsoever is leverage level of the firm (Durand, 1952).

A study regarding firms financing patterns on firms in small Island economy of Mauritius, on 38 firms for 1994-2004 period suggests that profitability, size, liquidity and tangibility are the major factors that impact on the capital structure choices (Ronoowah, 2004).

An analysis of important factor of publicly traded firms in India with a sample of 135 firms studied in this case for 1990-2009 period that was listed on Indian Stock Exchange. Result of study reveals asset tangibility, firm size, business risk, firm's profitability, liquidity carry significant effects on leverage level of the firms in India (Patric, 2004).

A study carried on the firms belonging to Uruguay states that tangibility, size and profitability are the variable that have impact on the funding sources of firms also supported by the relevant theories. Firms with less profit finance itself externally while the firms with more asset tangibility can easily gain facility of bank credit (Munyo et al., 2005).

Under different criteria previous studies on firms capital structure was carried out while various variable were considered in the different sector of economies. Unique characteristics exist in the various countries of the world and these unique features can be environment of the country and regulations through which various activities of companies are governed (Al-Ajmi, Abo Hussain, & Al-Saleh, 2009).

According to a study equity choice or the debt choice is depended on the various firm characteristics and to get results without best methodology is difficult to interpret. It is not possible to generalize the research findings of the one country with other countries and sectors of economy (Deesomsak, Paudyal, & Pescetto, 2004). A study suggests that how firms opt for capital structure and various factor that effect the financial decision of the firm are not evident (Olowe, 1997). Additionally another study states that policies that help firms in financing decision are not clear

(Mahmud & Qayyum, 2003).

Research study to find out the determinants of financing in Australia suggested insignificant relationship between firm size and debt ratio. Higher debt ratio of the firm with higher asset tangibility while decrease in case of three more variables. In case of Australian market pecking order hypothesis has more relevancy in comparison with the tradeoff theory which were also confirmed by negative correlation of profitability and debt. Negative association of firm growth, profitability of firm and business risk of the firm were significant which is according to the bankruptcy costs, and furthermore agency cost theory (La Porta et al., 1999).

A study by (Abor & Biekpe, 2009) on small and medium size businesses in Ghana for 1998 to 2003 period with sample of 160 small and medium sized enterprises suggested age of firm had positive relationship with the debt(long term) while the variable of age has negative relation with short term debt. According to findings of this study firms that are older have good credit history so it is easier for such firms to finance debt as compared to the firms that are new ones. Firms with larger size have more diversity thus carry lesser risk and positive relationship of long term debt ratio and firm size confirmed it. Additionally positive correlation of long term debt and the asset structure show that firms that have smaller size are considered as risky business venture and more collateral is needed for smaller sized firms for long term debt. While correlation between the short term debt and asset structure was inverse.

A study on the financing choices around the world with special attention to firm specific factors and country level characteristics as also carried out. The period that was considered for study propose was between 1997 and 2001. Findings of this study suggest that firm specific factor that are determinants of leverage vary in different countries. Outcomes also suggest that leverage decisions of the firms are effect country specific factors also (De Jong, Kabir, & Nguyen, 2008).

To find the association between the debt and company specific characteristics and behavioral difference with firm size that different. For this purpose a sample of 260 firms from Estonia was selected .The sample consisted of non-financial firms only. The sample was divided into smaller sized firms, larger sized firms and medium

sized firms. Findings of this study suggested business size had negative correlation with debt while tangibility has significant and positive association with the leverage. Firms that are smaller in the size weak correlation exist between business risk of the firm and leverage. In their financing decisions by Estonian firms pecking order theory is followed. Furthermore behavioral patterns also exist between the larger and smaller firms (Seppa, 2008).

A study to explore financing patterns of Swedish firms was also carried out. For this purpose 6000 firm that were Swedish was selected for the period between 1992-2000. For analysis purpose panel data regression was employed. Total debt and long term debt had positive correlation with tangibility while has positive correlation with the shorter term debt ratio Relationship of profitability with all measures of firm leverage was observed as negative. Findings suggest that smaller size firms are unable to get the debt finance (Song, 2005).

In a study by Eldomiaty (2008) and furthermore another study by (Haron, 2014) states that prominent research is carried out in determining the financing of the firms but knowledge that is presented in these studies is limited on as equity markets and capital markets in the worlds developing countries not fully efficient and markets are imperfect in comparison with developed countries of the world.

Firms in the Central European countries use more debt in short run. In such transitional economies the theories of capital structure does not fully explain financing decisions of the firms (Delcoure, 2007).

For generating more capital firms engage in right issues to finance their growth (Ramirez, 2011). In long run capital stock may use to raise funds by the firms which also include the preferred stock and common stocks and retained earnings also. As a permanent finance source equity finance is preferred source by the firms because redeeming of equity finance is not easy one. Right issue provide good opportunity to the existing stockholders of the firm to get additional stock at lower price (Lambrechts & Mostert, 1980).

In the beginnings in the field of finance theoretical literature assumed that the capital markets are efficient while all of the information are truly reflected in the

securities (White & Lusztig, 1980). Shareholders of the right issue can have extra shares moreover they can also sell their shares and they can also transfer their shares. One of the main benefit of the right issue is that raise fund for the firms it is a method which is cost effective among other methods as this method has low floatation costs.

To increase the profits business organizations make betterment in production and operational efficiency .Various factors affect the business efficiency of organizations including capital structure. The aim is to enhance the profit margins at less costs (Brigham & Ehrhardt, 2008).

There exist fix costs in external financing, firms that are smaller in size refinance equity as these smaller firms are highly effected by the fixed costs (Chepkemoi, 2013). Financing decisions some time look simple but it take some time. Management of a firm has to decide whether to obtain funds from internal source or external source such equity issue, loans from financial institutions and trade credit. Financing decision by firms managers influence the governance structures of the firm which directly impact the strategic decision of the firms (Mwangi, Makau, & Kosimbei, 2014).

Firm managers make choices regarding financing, financing choices does not surely mean value maximization but mangers may make decisions for their personal interests, special in those cases when business decisions are dictated by mangers and voting powers they have (Margaritis & Psillaki, 2010).

Business cash flows, deferred income, own savings, are also part of equity financing (Kongmanila & Kimbara, 2007). Those who put equity in business for expectation as high growth rate and future returns are Angel investors thus they support the entrepreneurs (Ibrahim, 2009). For business equity financing is vital income source and the relationship between business performance and equity financing is positive. Firms with equity control perform better as in this case there is direct control (Githire & Muturi, 2015).

Firms that are smaller in size do not follow the growing strategies more in case if SME has choice of Internal finance and debt such firms do not rely on external debt in this way they are able to retain their control in their business (Bell & Vos,

2009).

Studies regarding the dynamics of the capital structure was initially explored by (Jalilvand & Harris, 1984) and they observed that firms financing behaviors is fractionally adjusted toward long run target capital mix and firms reach this target with certain speed. Such type of adjustments cost create the hurdle toward complete adjustment toward target debt (Myers, 1984). Optima leverage and observed leverage difference is the low for the larger sized firms, moreover for the firms belonging to UK the optimal leverage has negative effect on the adjustment speed (Altman & Karlin, 2010).

For profitable firms expected cost of financial distress is lesser. Leverage has negative correlation with profitability of the firm in the dynamic tradeoff model. Some researchers give reason for this relationship as firm accumulate their profits passively (Kayhan & Titman, 2007). In larger sized firms diversity is also higher thus their chances of the default are also less thus trade off theory expects to have larger sized firms end up having more debt. The relationship between firm size and leverage of the firm is inverse as per pecking order theory. Moreover larger size firms also have opportunity to have the more retained earnings. In financing decisions M & M irrelevancy theory was based on the certain assumptions that the there is no tax whether for the individual or the company ,the seconds assumption was there was no transaction costs and third assumption was debt is risk free and fourth assumption was capital markets are perfect.

In real life these assumptions do not exist. One of the most flaw in this theory was that taxes could not be ignored as debt is tax deductible, more taxes, along with the difference in information's availability and agency costs have an impact on the financing decisions and moreover these factors play an important role in financing decisions (Green, Murinde, & Suppakitjarak, 2002).

Various research express their opinion that benefits that firms derive from the debt could affect the firms to fund their business operations via debt finance rather than equity finance. Another major criticism that was on M&M theory was that it ignores the costs that play role in financial distress of a firm which is because of the excess usage of debt by the firms (Brigham & Ehrhardt, 2008).

A study on capital structure of the firms of Finland. Results of this study suggests that firms in Finland maintain the optimal leverage or firms maintain a target capital structure while smaller sized firms do not maintain optimal debt policy. This phenomenon is according to trade-off hypothesis predictions (Kjellman & Hansén, 1995), furthermore criticism on tradeoff theory is that it fails to provide alternate pattern of financing for the firms (Megginson, Smart, & Gitman, 2007). As per study of (Tong & Green, 2005) firms should firms that earns more profit in their business years should borrow more debt so that firms could be able to gain advantage of tax shield.

Various researcher state reasons of particular preference given to internally generated source of funds first to other sources of funds, .funds from external source may lead to the scrutiny of the firm (Kjellman & Hansén, 1995). Shareholders of the firm and creditors can watch the firm operations for surety of the good usage of the funds they have provided. On the other hand the managers of the business are not relax been overseen they they try to rely on internally generated funds so that external interference can be minimized.

Another reason for relying on the internal source of funds is asymmetric information. Information asymmetry play an important role in financing decisions in the firms. Usually when there not a balance in the information then the with one part have more information than the other party which can have an effect on the outcome .Mangers of the firms have specific information regarding firm which the outsiders do not have and such information which mangers have are valuable in optimal financing decisions. In case a firm issue new shares there are chance that the prices of the share would be lower as it would result in transfer of wealth form already shareholders of the firms to the new shareholders. In this case of underpricing the existing shareholders of the firm would reject the project whose net present value was positive.

In Pecking order theory transaction cost has also been explained and these transaction costs are related to the issuance expenses. Funds that firms acquire from the equity investors have more transaction costs while the retained earnings of the firms is the best option of financing for the firms. A research study by (Fama &

[French, 2002](#)) suggests that profitable firms and newer investments offer higher dividend payouts. Moreover they also observed in their study that those firms having higher profitability are less geared.

The presence of the pecking order was also observed in the firms in the United States (US). The study findings suggest firms with the surplus amount of funds do not choose external source of finance for additional funds although it was predicted by the theory. There could also be other reasons for the firms to seek the external funds beside internal shortfall of funds. There is also findings of this study that firms will issue equity finance regardless of the debt availability or not ([Helwege & Liang, 1996](#)). Higher amount of dividend decreases the amount of retained earnings and therefore the demand for the debt increases. Retained earnings of the firms that are available for the investment and dividend payment has close relationship. If dividend amount paid is higher there could be less funds that could be available for the investments in future. As result debt will be required for supporting the investment project.

Firms prefer bank loans over the use of internal funds, although asymmetric information was present, a study on managers in South Korea reveals ([Ang & Jung, 1993](#)). Firms try to seek credit from the external market even their funds are not fully utilized internal source of funds. According to Pecking Order theory firm will only focus on external finance after all the internal funds of the firms are utilized ([Minton & Wruck, 2002](#)).

To study the effect the timing had on the capital structure of the firms in market was initiated by the ([Baker & Wurgler, 2002](#)). According to both researches new shares will be issued by the firms when there is perception that they are overvalued. Both these researchers proved that impact of market timing on capital structure is persistent. It is possibility that firms whose equity is overvalued will issue the equity to so that such firms could deal with financial deficit ([Elliott et al, 2007](#)). Firms that have larger size have a better credit rating also so such firms can easily access the non-banking sources and this edge is not available to the firms of smaller size ([Bevan & Danbolt, 2002](#)). Firms with smaller size are not over-dependent on debt financing but such firms are forced to finance debt in their capital structure

because such firms are unable to access equity finance. Furthermore smaller size firms lack the requirement to list themselves on the stock list as a result they are dependent on debt financing (Pike & Neale 2006).

Owner managers of the business does not issue equity thus they depend on debt to run their business operations so that family dilution in the ownership of the firm could be avoided (Wiwattanakantang 1999). Management wish of having the control of the firm debt is favored over the equity even the cost of debt is higher to avoid any influence from the equity holders (Boateng 2004). A study on Latin American firms suggests that firms prefer heavy debt in their capital structure and these firms are reluctant to issue equity so that sharing control rights could be avoided (Céspedes, González, & Molina, 2010).

There is also evidence regarding the financing behavior of the firms in the advance economies of the world. A study of the firms in US suggests that debt have positive correlation with tangibility and have negative association with profitability of firm. Moreover size is positively associated with short as well as long term borrowings and have negative relationship with short term bank debt (Bevan & Danbolt, 2002).

Debt-Equity choices in European Union countries with more 5000 selected firms was studied. This study concluded that both pecking order and tradeoff theory does not offer proper description regarding financing policies in Europe. It was also observed in this study that debt does not seems a preferable choice but equity is preferred in such investments projects which enhance the value (Gaud, Hoesli, & Bender, 2007).

Research study on the impact of financial constraints on Japanese firms indicated the impact of credit supply on capital structure of the firm .Firms that are smaller in size encountered financial constraints during the economic crisis .During economic slump lenders were careful in providing credit to the firms as business survival in such cases was not predictable .Larger firms have large scale assets and they serve their assets as collateral in debt agreements (Voutsinas & Werner, 2011).

Research study suggest that firms in the emerging markets of the world has carry

more fixed assets as compared to the firms in the developed economies. Moreover firms in emerging markets have lower debt ratio also. Under trade off theory we expect higher debt level of firms because of massive asset base but debt level of firms is lower according to this study as firms may experience limited access to credit in emerging economies (Glen & Pinto, 1994).

Firms in the Arab countries employ less debt as compared to the firms in the western countries. Firms in Arab also have less taxes to pay than their counterparts in the western economies. Financing behavior of the firm is in reverse order of pecking order theory (Alimari, 2003). A study on financing pattern of firms in Egypt suggests that firms in Egypt prefer equity financing over debt financing for new investment financing. Managers of the firm in Egypt consider debt as a risky source of finance as it will lead to additional debt acquiring therefore managers prefer equity financing over debt financing. Moreover bond market in Egypt is not fully developed and this also contributes to lower leverage ratio in firms (Dawood, Moustafa, & El-Hennawi, 2011).

A study on the Australian firms suggest that age of CEO, age of firm, size, business planning, family control, industry and the owners business objectives and business growth decisions have effect on the financing decision on family business owners. Findings of this study also show that family business finance their business from multiple sources and financing by family business owners will be dependent on financial, behavioral and social factors. Those family business that are in the services industry will be using less family loans (Romano et al., 2001). Another study to explore the determinants of financing decisions and adjustment speed to the target debt ratio by firms that are under financial distress and the firms that are not under financial distress reveals that with the inclusion of firms under financial distress it is necessary to include macroeconomic variables as well. The period of the study was 1986-2011 for Malaysian firms (Ariff, Taufiq, & Shamsheer, 2008).

During economic downturn firms with higher debt may experience downfall in their sales. This may not be the same case for the all firms with the higher debt (Campello, 2003). In another study Campello suggests that firms may have high

higher sales growth as they take debt than industry averages of firms having higher long term debt. Findings of this study also suggests that when the debt level of the firms exceeds the industry average then firms along with its competitors are unable to perform well (Campello, 2006). Furthermore in his another study campello suggest that firms market performance is better after the firms raise debt as a source of finance and more over the products of the firms perform better in the market than the competitors of the firm (Campello, 2006).

A study on the agency costs of Chinese firms with a sample of 775 firms from Shenzhen and Shanghai Stock exchange was selected for a period of 2010-2012. To explore the relationship between agency costs and the capital structure both Ordinary least square and panel data analysis was used. Findings of the study suggested that agency costs has negative relation with debt to total asset ratio and has positive and insignificant relationship with the long term liability rate (Menmeng 2013).

Another study on small business in Newzeland was carried out with 240 small business listed on the stock exchange of Newzeland. Findings of the study suggests that agency costs vary according to the business life, size of the business and instduty. Moreover firm debt level also effect the firm principal- to principal and principal to agent .However debt for the smaller business create complications. First of all for getting loan from a bank for the smaller business will require the guarantees that are personal more over mortgage of personal property as collateral (Onsumo, 2014).

To reduce the free cash flow agency problem debt as well as executive can play an important role .Finding of this study suggest that free cash flow is an important problem in the firms with less chances of future growth. Additional debt act as significant monitoring device and the correlations between the capital structure and free flow in negative (Zheng, 2013). Another study to explore relationship between agency costs, ownership structure and corporate governance was carried out in United Kingdom. Finding of this study suggests negative correlation between free cash flows and debt .Moreover higher debt level results in lower free cash availability to the firm which result in the reduction of the agency costs (McKnight &

[Weir, 2009](#)).

A study on 135 Spanish firms for the period of 1990-1997 suggest that transaction cost is bearded by the firms in Spain is low as compared to the firms in United States and one of the reason of lower transaction cost in Spanish firm has low private debt percentage. Additionally negative correlation also exist between debt and non-debt tax shield ([De Miguel & Pindado, 2001](#)).

[M. K. Kim and Wu \(1988\)](#), study the impact of inflation on both the supply and demand of debt. For this purpose 1092 firms were selected for the period of 1961 to 1981 .Results suggests that leverage of the firm increase when the inflation is high in high leverage firms, medium leverage firms and low leverage firms. Thus inflation results an increase in the debt level of the firm.

Another study was carried regarding the macroeconomic determinants of the capital structure. The findings of this study suggest that change in interest rate has an effect on the financing decision of the companies ([Nejadmalayeri, 2001](#)).

A dynamic panel data technique was applied by the ([López-Gracia & Sánchez-Andújar, 2007](#)) on Spanish firms. Study periods was 1992-2002. Findings of this study reveals that there exist negative correlation between the firm size and external source of financing moreover positive relationship existed between the firms age and short term bank financing and short term finance .Findings of this study also reveal that in Spain the capital markets are not well developed and firms in Spain access short term debt more. Moreover all the economies in the western part of the world have same level of financial development. In some countries of the world the financial system is better devolved and firms in such countries better utilize the financial systems get the finance easily at the cheap rates.

A study by [Deesomsak et al. \(2004\)](#) explored the determinants of financing decision of the firms Australia, Thailand, Singapore and Malaysia. More over financial crisis of 1997 effect was also studied on the capital structure of these counters that exist in the region of Asia Pacific. Findings of this study show tangibility had positive relation with the debt of the firm but this variable of tangibility was only significant in the Australia .Earning volatility had no effect on the leverage in any of the country .Moreover finding of this study also reveal that financial crisis of

1997 had effect on the capital structure decisions of the firms and also played role in financing decisions of the firms.

Funds raised through the sale of stock is called equity financing it consists of initial public offering and secondary equity offerings. Offering can also be in the form of right offering and it can also be in the form cash offer. There is difference in SEO and IPO, as SEO is made after firms have previously issued the equity with good financial performance previously and shares are traded in the equity market. In IPO shares of the firm are sold on the stock exchange for the first time ([Abraham & Harrington, 2011](#)).

Firms with higher growth opportunities and more investments focus on the equity issuance rather than debt which is related to the periodic interest payment ([McLaughlin, Safieddine, & Vasudevan, 1996](#)). Equity financing as compared to the debt finance adds positive value to the firms shareholder in a way that capital structure of the firm is balanced by financial distress costs and tax shield ([Myers, 2001](#)). The relationship between the debt and rate of the return was negative one while the relationship between the equity and short term finance was positive ([de Mesquita & Lara, 2003](#)).

Changes in firm earnings and risk was studied by ([Healy & Palepu, 1990](#)), they found no changes in the earnings as compared to the previous year. On the other hand another research study suggests negative relationship between the financial performance and equity issuance in a sample of 109 firms for the period of 1975 to 1982 ([Hansen & Crutchley, 1990](#)).

Equity issue resulted in the negative abnormal return before announcement day of equity issues ([Njoroge, 2004](#)). A study on effect of secondary equity offering on New York stock exchange reveals that there is no effect of secondary offering on stock prices of firms listed on the New York stock exchange ([Mwangangi, 2011](#)).

A study of Japanese firm that conducted secondary equity offerings from 1971 to 1972 reveals that firms underperform against the set standards and benchmarks. Below par performance of the stocks also includes poor operating performance of the firms ([Cai & Loughran, 1998](#)).

A study to explore the relationship between the equity issuance of the firm and

performance of the firms suggest that in short run secondary equity offering over perform in market while in long run secondary equity offering under perform in the market in US (Jumba, 2002).

The relationship between the right issue and the financial strength is also studied. Firms that are financially weaker they will have higher underwriting costs thus weak firms may not issue the right issues (Ursel, 2006). According to Ursel the chances of issuing right issue by firm has direct relation with the financial strength. Economic factors also play an important role in the right issue announcement of the firms. A study on the impact of economic factors on convertible debt offerings reveals a significant positive relationship share prices and nominal interest rates (Akhigbe & Whyte, 2001). No impact of short term interest rates and long term interest rates was observed on the share prices changes to equity announcement. This study also explains that in period of higher economic growth the asymmetric information is lower which result in equity issue in strong economic growth (Choe, Whittington, & Lauria, 1996).

Numerous research studies suggest that firm cash holding level increases with the financial constraint. Firms with financial constraint show concern for their future as such firm maintain more cash so that such firms able to avoid external finance that is expensive in case Net present value of the project is positive. Firms with financial constraint perform more equity issuing with higher growth (Almeida et al., 2011).

Assumption of Modigliani and Miller does not correctly state that firm value is independent of its capital structure in a capital market that is perfect. The role played by capital structure of the firms is very important in generating value for the firm and owners of the firm. In capital markets that are imperfect firms have to acquire equity and debt to run its operating smoothly. Firms that manage debt and equity effectively are able to increase value of firm shares (Xu & Birge, 2008). For medium and small sized firms pecking order theory provide better description of financing ways as debt is the larger source of financing and owners of small and medium enterprise firms do not want that their ownership is diluted, thus they prefer firm internal source of finance. In case a firm has to go for external finance

such firms prefer debt to equity and order of preference also represent the relevant cost of financing (Quan 2002).

The relationship between the profitability and capital structure of ten firms belonging to Srilanka for 8 years data for period 2002 to 2009. The findings of study reveals that relationship between profitability and capital structure is negative except relationship between return on equity and debt to equity. Findings of this study suggest that majority of total assets in the Sri Lankan banking sector are financed by the debt (Velnampy & Niresh, 2012).

Macroeconomic variable impact was also studied on the debt equity ratio during the period of financial crisis. Findings of this study reveals that Gross Domestic products have positive effect on the debt to equity ratio (Zeitun, Temimi, & Mimiouni, 2017).

A study carried during the financial crisis of 2008 reveals that debt to equity ratio increases during the financial crisis period and firms having lower debt to equity ratio before crisis period accumulate more debt (Iqbal & Kume, 2014).

A study of the US firms with the seasoned offerings suggested that firms with marginal tax rate effect the financing decisions of the firms. The result of this study also reveals that firms with higher tax rates carry more debt which is according to the trade off theory (MacKie-Mason, 1990).

Additionally another study explored the relationship between the debt ratios of the firm and firm characteristics and macroeconomic variables. The association between the firm specific variables and the leverage ratio is as per the tradeoff theory and pecking order theory. Firms with larger tangible assets have more leverage (Korajczyk & Levy, 2003). A study on the Chinese listed firms was carried out and three different models was tested. Model one results show that the correlation between the leverage and profitability is negative, model two was in favor of pecking order hypothesis over the trade off theory while the third model was inconclusive (Tong & Green, 2005).

A study on the impact of various firm characteristic on the capital structure of firms in Turkey reveals that correlation between the size and leverage is positive while the relationship between the non-debt tax shield, growth opportunities and

leverage is found to be negative. Moreover the relationship between leverage and tangibility, profitability was negative one. These results were as per trade off theory (Sayilgan, Karabacak, & Küçükkocaoğlu, 2006).

A study of 143 small and medium enterprises for the period and of 1990-2005. The relationship between the size, profitability and leverage is negative one. Thus these results were as per the pecking order hypothesis (Gülşen & Ülkütaş, 2012).

A study of firms listed on Istanbul Stock Exchange with 243 firms listed. The period of the study was in-between the 2000 to 2009. The relationship between the leverage and the tax rate, size was positive, while the correlation between gross domestic products, tax shield and growth was negative. Moreover relationship between the growth opportunities and the leverage was observed as positive and correlations between the leverage and profitability, tangibility was negative. Moreover it was also observed that pecking order theory is helpful in explaining the order of financing of the firms listed on Istanbul stock exchange (Bayrakdaroglu, Ege, & Yazici, 2013).

The impact of development of stock market on three countries including Saudi Arabia, Oman, and Kuwait with 142 firms sample for period of 1998-2005 was studied. Leverage level in these three countries are particularly lower as compared to the developed countries of world while the relationship of stock market indicators with capital structure was inverse which show that stock markets in these three countries effects the financing decisions of firm (Sbeiti, 2010).

Equity financing is not relevant in capital structure of the firms according to a study on East Asian Countries (Nagano, 2003). Furthermore a study suggest that industrial factors and macro-economic factors does not play pivotal role in capital structure decision while they role played by firm specific factors and industrial factors is important (Kayo & Kimura, 2011).

2.1 Determinants of Equity Financing Policies

Stock issue by firms that has already issued primary equity is referred to as secondary equity. From capital structure point of view in case of funds availability

long terms finance can be raised internally by the firms if that is not the case and firms need financing for the product development, facility expansion, research & development that require huge capital in such cases external finance is required from the financing institutions such as the banks or issuance of common stock is required through seasoned equity offerings to new shareholders or to the excising shareholders.

Trade off model states that in choices between debt and equity in optimal capital structure is trade off between tax benefit of debt and cost of financial distress that has association with higher leverage level (Krasker, 1986).

Firm Uniqueness is measured by dividing selling expense over sale (SE/S). Firm Size is measured as by taking natural logarithm of firm sales and Income volatility is calculated as by taking standard deviation of percentage change in operating income. Depreciation is divided over the total assets to calculate non-debt tax shield (Titman, Keown, Martin, & Martin, 2011; Leary & Roberts, 2005).

Two main agency problems are the between the shareholder and manager and the debt holder and shareholder (Jensen & Meckling, 1976). Manager expropriate the wealth of shareholders and for their benefits by the consumption of the firm resources, while shareholders of the firm have incentive and benefit to invest sub optimally in way to transfer wealth to themselves form the debt holders. Thus debt financing is valuable to solve the conflict of the Interest between the shareholders and debt holders (Grossman & Hart, 1982; Jensen, 1986; Jensen & Meckling, 1976).

Capital expenditures over total asset (CE/TA) is proxy for firm growth, implied for the test of the agency cost of debt financing. Various studies suggest that growth of the firm has negative relationship with debt usage (Rajan & Zingales, 1996; Baker & Wurgler, 2002; Kieschnick, Laplante, & Moussawi, 2006).

Pecking Order Hypothesis suggest that to finance new projects firm usually use internal sources of finance which is followed by the usage of debt and then equity .This process arise from the cost of adverse selection because of the information

asymmetry between the outside investors and firm managers (Myers, 1984). Therefore a firm that carry sufficient amount of earnings will use internal source of finance instead of external source of finance such as debt and equity which suggests that relationship between the profitability and equity usage will be negative .

To measure profitability of the firm annual operating income is divided by total assets (Titman et al., 2011; Leary & Roberts, 2005). According to the previous studies results negative relationship exist between debt usage and non-debt tax shield, therefore a positive relationship is expected between equity issue and non-debt tax shield (Leary & Roberts, 2005; Titman et al., 2011).

To calculate firm uniqueness selling expense is divided by the sales and has negative relationship with the debt usage which suggests positive relation between uniqueness and equity usage (Kieschnick et al., 2006; Titman et al., 2011).

Firms with specializes machinery parts and services has a chance of higher financial distress cost and such firms to use equity in comparison to debt. Large size firms access to debt finance is easier thus their chances of bankruptcy is lower (Titman et al., 2011). This result to the positive relationship size of firm and debt usage and the relationship between size of the firm and equity usage will be negative (Hovakimian, Opler, & Titman, 2001).

Income volatility of the firm has positive relationship with bankruptcy chance of firm thus we expect that debt usage would have negative relationship with income volatility which suggests relationship between equity usage and profitability would be positive.

2.2 Financial Theories of Capital Structure

Modigliani and Miller (1958) in his theory of capital structure state that in case no taxesn the market will be efficient and the firm value will not be dependent on amount of the debt that the firm has taken. According to their study model is dependent on the arbitrage and personal account borrow, in the process of arbitrage firms that differ in their capital structure should have similar one performances.

Modigliani and Miller (1963) in their study further familiarized corporate taxes

into their model and found that as assumptions are relaxed firms capital structure becomes relevant as the firm value increase. Both researchers (Modigliani & Miller, 1963) further stated that firm value is independent on the debt employment of the firm and both these researches recommend benefits of the tax shield that are related with the debt usage.

In his study (Miller, 1977) presented the personal taxes (while previously corporate taxes were only) in the model and according to him the firms may continuously use the debt unless till the tax of investor becomes equals the corporate tax and this phenomenon is for the reason that the further supply of the debt may result in rise in the interest rates till unless the tax advantage of deducted of taxes are becomes equalized by the high interest rates.

In other research studies DeAngelo and Masulis (1980) furthermore adapted investment tax credits and depreciation by linking to the personal tax theory of the (Miller, 1977). They explained in their study that non-debt tax shield would result in the market equilibrium as the firms that are not profitable may not be able to be get the benefits through advantage of tax.

Myers and Majluf (1984) extended and explored the theory by Modigliani & Miller. According to their study, firms at beginning of the business rely on the internal funds. Firms with the less availability of the information, less debt may be used as they face the problem of asymmetric information and thus brings high earnings.

2.2.1 Pecking Order Theory

(Donaldson, 2000) formulated the pecking order theory who observed that firms manager prefer internal financing source such as retained earnings in comparison to external funds as compared to firm size. If the firms retained earnings are more than firms needs for the investments then debt of firm will be repaid. However if the external funds are necessary the last option will the external equity that will be chosen by firms.

A hierarchal pecking order for the preferred sources of the firm finance was developed by the (Myers & Majluf, 1984) and accordingly retained earnings are used.

In case of insufficient retained earnings, debt financing will be utilized. In situations that are not ordinary as it has very high constraints in the management of the firms, equity will be used in such cases.

The usage of debt is encouraged by debt tax shield as opposite to equity finance as tax shield will reduce the tax payments (Kemsley & Nissim, 2002). This theory (Myers & Majluf, 1984; Myers, 1984) confirms that hierarchy of a particular pattern will increase firm value. Assumption of this theory is that optimal capital structure does not exist and firms utilize all funds that are available internally before opting for the external source of finance particularly in the case if external equities to evade the dilution of firm control (Holmes & Kent, 1991). Firm's issues equity even in the case if the resources of the firm are not fully exhausted (Baker & Wurgler, 2002).

According to another research study debt finance is favorable source of finance as compared to the equity as debt finance there is now dilution ownership of control and firm managers are particularly concerned with financial freedom (Cressy, 1995) and the independence (Read, 2002) and the firms managers does not want that their business and properties control is lost (Hamilton & Fox, 1998). It particularly happens in the small firms as external source of equity is not common source of finance in smaller sized firms.

According to the (Hutchinson, 2004) if the earning level is lower then there is usage of external funds and there will be chance that firms that are smaller in size will borrow than firms in larger size when the investment opportunities are available. A study by the (Shyam-Sunder & Myers, 1999) states that in case of internal funds shortage there will be issuance of debt. In another research study Cowling, (Liu, Peterman, Yu, & Schafer, 2012) that those owners who are reluctant for external equity financing will not take pecking order up to that point.

As per the study of, (Newman, Gunessee, & Hilton, 2012) the information asymmetry problem is related to pecking order theory. (Myers & Majluf, 1984) particularly took information asymmetry problem in their study and recommended that asymmetric information is main issue that paly role in capital structure of firm.

In market the common stock of firm would be undervalued according to (Myers,

1984) since owners-managers have more information than the firm's investors. A study by (Andújar-Sánchez, Jara-Pérez, & Cámara-Artigas, 2007) and Lopez & Garcia suggest that in internal finance would be used for financing the project in case there is no information cost and the second one choice would be ultimately debt financing and then equity for which the information cost is more.

Furthermore in a study (Titman et al., 2011; Leary & Roberts, 2005) measure profitability of the firm by dividing operating income over total assets. The expected relation between portability of the firms and the equity usage is negative on the base of pecking order hypothesis.

2.2.2 Trade-off Theory

The value of the unlevered firm and levered firm is not same as per static theory. Taxes, banking and agency costs effects firm's adjustment to the optimal leverage. According to (Ross, 1977) maximization of firm value exist at that particular point where the marginal debt cost and marginal debt have benefits that are equivalent. As the income tax is tax deductible so the firms can increase after tax cash flows as the interest is the text deductible expense thus leverage and tax rate has positive relationship while due to the usage of the debt the cost of agency financial problems and surge in cost occurs. Increase in leverage results in damage and financial problems and when the firm is unable to pay its debts we call it financial distress. As per the study of (Altman, 1984) direct costs are the operating costs and administrative costs. Variation in the investment policy by the firms in difficult financial situations and to minimize such costs firm may reduce the marketing expense, training costs and cost on research and development activities.

According to the study of the Myers and Majluf (1984) when debt is substituted with the equity the optimal capital structure is determined until the value of the firm is maximized. In comparison to the Pecking Order Theory this theory suggests those firms that have profit have high debt ratio .Such phenomenon are because the firms with more profitability have less chances of going bankrupt ,higher tax saving from the debt and higher overinvestments. According to this theory the

relationship between the profitability and leverage is negative as firms usually accrue the profits and losses and thus let the deviation of debt ratio from particular target. Similarly firms with high profitability previously will have low gearing (Hovakimian et al., 2001).

Trade off model also explain and connects the financing policies of the companies to trade off benefits of tax and financial distress costs that are related with the leverage (Kraus & Litzenberger, 1973). Investment tax credits and the depreciation are non-debt tax shield are considered to debt substitutes associated with tax benefits of the debt. (DeAngelo & Masulis, 1980) and depreciation is also included in this study to test the tradeoff theory.

In literature firm size, uniqueness and income volatility are the factors that symbolize financial distress cost associated with the leverage (Booth, Aivazian, Demirguc-Kunt, & Maksimovic, 2001; Leary & Roberts, 2005; Titman et al., 2011).

Firm size is measured by taking natural logarithm of sales and standard deviation of percentage change in operating income is used to measure Income Volatility. Firm uniqueness is positively correlated with debt usage as per various studies (Titman et al., 2011; Kieschnick et al., 2006) which suggests that relationship between uniqueness and equity usage is negative.

According to the study by Titman et al. (2011) those firms that acquire special parts, equipment's and services will prefer equity over debt. There are less chances of bankruptcy of the larger firms as for such firms it is easier to access debt finance thus in such situation the relationship of firm size and debt will be positive one (Hovakimian et al., 2001) which suggests that relationship between firm size and the equity usage is negative.

2.2.3 Agency Theory

(Fama & Miller, 1972) in their study explored utility relationships between firm manager and shareholders of the firm. The main focus of the agency theory is the agency costs and it stresses that agency cost increase because of the conflict of interest between managers and the shareholders of the firm which is also referred to as agency cost of equity and the conflicted of interest that may arise amongst debt

holders and shareholders of the firm which also referred as agency cost of debt. As the firms managers are determined to invest their funds in a business that are risky ones for the interest of the shareholders as they are not only the sole beneficiary that get the profit form the firm business (Harris & Raviv, 1991).

Lenders to the firm will bear the whole cost in case if there is investment failure as limited liability business are also liable for the debt of the business. Debt can play an important role in reducing or monitoring the conflict of interest between the firm managers and the shareholders (Jensen, 1986). Due to issuing of debt, free cash flows to the owner's managers may be reduced because the firm will serve the debt that is rendered.

Agency problem could happen also if funds are obtained through debt could provoke and elicit equity holders of the firm to invest sub-optimally. Equity holders incentive can increase to transfer wealth from the bondholders to the equity holders. Firms equity holders anticipate to get maximum gain in their investments with maximum returns while on the other hand debt holders get payments that are fixed on the principal amount (Fama & Miller, 1972; Jensen & Meckling, 1976).

Firm growth and debt usage has negative correlation according to the multiple studies (Rajan & Zingales, 1996; Baker & Wurgler, 2002; Kieschnick et al., 2006) thus the positive relationship between firm growth and equity usage is expected. The relationship between debt and non-tax shield is expected to be positive as per according to various studies (Titman et al., 2011; Leary & Roberts, 2005).

2.3 Hypotheses Development

2.3.1 Firm Growth and Equity Ratio

For the firms that are in industries that grow faster, agency cost is expected to be high and firms are flexible in choices of future investments . Thus the expected relationship between long term debt and firm growth is negative (Baker & Wurgler, 2002; Kieschnick et al., 2006) thus positive relationship between the firm growth and equity usage is predicted. To measure firm growth, capital expenditures is

divided by total assets.

H1: There is an impact of firm growth on equity ratio.

2.3.2 Non-Debt Tax Shield and Equity Ratio

To represent non debt tax shield depreciation is divided over total assets as per various other studies. The relation between non debt tax shield and debt usage is positive as per trade off model and this relation is also explained by further other studies as well (Titman et al., 2011; Leary & Roberts, 2005) therefore negative effect of non-debt tax shield is expected on equity issuance decision of the firm is expected.

H2: There is an impact of tax shield substitution on equity ratio.

2.3.3 Uniqueness and Equity Ratio

Uniqueness of the firm can be said as selling expense over sales. Firms that produce unique products or special kind of products, their customer, supplier and workers face relatively higher costs in event of the liquidation of the firm (Titman et al., 2011). Firm with unique products need more funding to advertise their products and also has to increase their spending on the advertising and distribution costs, accordingly. As per Trade off theory uniqueness has negative relationship with debt ratio, which suggests positive relation between uniqueness and equity ratio (Titman et al., 2011; Kieschnick et al., 2006).

H3: There is an impact of uniqueness on equity ratio.

2.3.4 Firm Size and Equity Ratio

Debt & equity cost are associated with the size of firm and in various studies there is substantial indication that financing patterns of the firms varies with the size of the firm. For the firms that have larger size as compared to smaller firms, can easily access the debt thus they have less chances of bankruptcy and it suggest relationship of size of the firm and debt usage would be positively and

thus negative association between firm size and equity financing is expected and it leads to argument that larger firms should be more leveraged. According to tradeoff theory firm with larger size borrow more debt in the capital structure of the firm (Titman et al., 2011; Hovakimian et al., 2001). Furthermore firms that are larger in size have ability to gain high profits as compared to smaller firms as larger firms have capacity to diversify their risks (Wan Mahmood, Affandi, Baharuddin, Mohamad, & Shamsudin, 2011). Alternative view is that larger firm will opt for equity finance and issue more equity such as common stocks because of low information asymmetry or no issue of information asymmetry as compared to smaller firm, thus in this context relationship between firm size and leverage will be negative which is according to the Pecking order hypothesis therefore positive relation exist between firm size and equity ratio (Titman et al., 2011). To measure firm size natural logarithm of sales is taken (Rajan & Zingales, 1996).

H4: There is an impact of firm size and equity ratio

2.3.5 Profitability and Equity Ratio

Pecking order theory states that financing preferences of the firms are in order and firms favored source of financing are the retained earnings for their investments and then debt and last choice is the issuance of new equity (Myers, 1984). Retained earnings are dependent on the firm's profitability and profitable firms finance less debt as compared to firms that earn less profit. As the internal finance are cheap source of finance and there is also no external interfering so profitable firms will have less leverage because of the more retained earnings therefore leverage and profitability have negative correlation (Rajan & Zingales, 1996; Titman et al., 2011; Booth et al., 2001) the negative relationship between profitability and leverage is as per pecking order theory. According to the trade off theory profitability and leverage has positive relationship and this is because more a firm is profitable higher income to tax shield it has because profitable firms borrow higher eventually they have more income to shield from tax. Thus company sufficient amount of earnings will use more debt and less equity which implies that

relationship between profitability and equity usage is negative .To measure profitability the operating income is divided over total assets ([Chen, 2004](#); [Leary & Roberts, 2005](#)).

H5: There is an impact of profitability on Equity Ratio.

2.3.6 Income Volatility and Equity Ratio

Income volatility is standard deviation of percentage change in operating income and is measure of the business risk of the firm and is absolute variation in the profitability of the firm. In business operations of the firms, risk is inherent and lack of efficient and effective business practices can also result in business risk. Trade Off theory states that firm's level of leverage is function of business risk of the firm, due to agency cost and bankruptcy costs firms does not fully utilize the 100% tax benefit of debt thus agency and bankruptcy theories are negatively related to leverage and positive relation is expected between Income Volatility and equity level. ([Babu & Chalam, 2014](#)).

H6: There is an impact of Income volatility on Equity Ratio

Chapter 3

Research Methodology

3.1 Data Description

This study aims at studying the equity financing behavior of the non-financial firms that are listed on Pakistan stock exchange. Secondary data is taken for analysis purpose. Moreover for analysis purpose annual data of the firms is used. The data is taken from the website of Pakistan Stock Exchange, State Bank of Pakistan website and official website of companies used in analysis. The sample period is 14 years from the year 2004-2017 for 78 non-financial firms.

3.2 Methodology

This section of the study presents the methodology of the study. In our study capital structure is studied from the perspective of equity. Ratio of market value of equity to sum of book value of debt and market value of equity is known as Equity Ratio. (Booth et al., 2001; Welch, 2004; Chen, 2004). In several research studies market value of equity has been used to measure capital structure of the firms (Booth et al., 2001; Welch, 2004).

Book value of equity is accounting number which balances the both sides of balance sheet and is also affected by the asset depreciation and historical cash flows

according to accounting rules (Welch, 2004). Determinants of equity financing behavior is estimated by using equity ratio as the dependent variable and mix of firm external and internal factors as independent variable that affect equity financing decisions of the firm. The regression model that is used is stated below.

$$Y_{i,t} = \beta_0 + \beta_1 X1_{i,t} + \beta_2 X2_{i,t} + \beta_3 X3_{i,t} + \beta_4 X4_{i,t} + \beta_5 X5_{i,t} + \beta_6 X6_{i,t} \dots \beta_k X_{k,t} + \epsilon_{i,t}. \quad (3.1)$$

Where,

$\Delta V = \beta_0 + \beta_1$ Firm growth + β_2 Tax shield substitution + β_3 Uniqueness + β_4 Firm size + β_5 Profitability + β_6 Income Volatility + $\epsilon_{i,t}$.

$$\frac{ME_{i,t}}{ME_{i,t} + D_{i,t}} = \beta_0 + \beta_1 \frac{CE_{i,t}}{TA_{i,t}} + \beta_2 \frac{DE_{i,t}}{TA_{i,t}} + \beta_3 \frac{SE_{i,t}}{S_{i,t}} + \beta_4 \ln sales_{i,t} + \beta_5 \frac{OI_{i,t}}{TA_{i,t}} + \beta_6 IV_{i,t} + \epsilon_{i,t}$$

Where, $\frac{ME_{i,t}}{ME_{i,t} + D_{i,t}}$ is dependent variable and is ratio of firm i's market value of equity to sum of its total liabilities and market value of equity at time t that is end of announcement year. $\epsilon_{i,t}$ is the error term. β is a vector of parameters. To represent total debts, total liabilities are used, $\frac{CE_{i,t}}{TA_{i,t}}$ is the ratio of capital expenditure to total assets and is measure of firm growth, $\frac{DE_{i,t}}{TA_{i,t}}$ is the ratio of depreciation to total assets and is measure of non-debt tax shield, $\frac{SE_{i,t}}{S_{i,t}}$ is the ratio of selling expense over sales and is measure of uniqueness, $\ln Sales$ is the natural logarithm of sales and is measure of firm size, $\frac{OI_{i,t}}{TA_{i,t}}$ is the ratio of operating income over total assets and is measure of profitability, $IV_{i,t}$ is the income volatility and is measured by taking standard deviation of percentage change in operating income of the firm.

3.3 Panel Data Analysis

Panel data analysis is used when data have time series and cross section data. Same applies in this study as well. Time series means the collection of data at specific order and equal space of time for example monthly quarterly and annually data for period of 2004 to 2017, and cross section data means the collection of data of the firm and individual of specific time for example one year data. For the analysis of panel data three different models are used.

Each model have different set of assumptions for the intercept. The first is the common coefficient model, second one is the fixed effect model and third one model is random effect model. Common co-efficient model has common intercept across all cross sections and time period, while the second model which is fixed effect model describes that the intercept is different across all cross sections. Third model which is Random effect model the intercept is different for all cross sections with random over the time.

To determine which one is applicable of three different model two different test are applied for the application of panel data analysis. To identify among two models of common coefficient model and fixed effect model, Likelihood ratio test is used. If the result is significant then fixed effect model will be used and if the result is insignificant then common coefficient model will be used.

Hausman test is used to identify which of two model of fixed effect model and random effect model is to be used for the study. If the result of this particular test is significant then fixed effect model will be used and if the result in this case is insignificant then the random effect model will be used for the data analysis.

When there is time series of the cross sections but observation in cross section are not related to the same unit it is referred to as pooled data, while in panel data same cross sectional units are observed at multiple points of time.

3.4 Measurement of Variables

TABLE 3.1: Variables Description

Variable Name	Measurement	Empirical Evidence
Equity Ratio	Market value of equity/(Market value of equity +Total Debts)	Welch, 2004, Chen 2017
Firm Growth	Capital Expenditures/Total Assets	Booth et al., 2001, Titman & Wessel 1988, Chen, 2017
Tax Shield Substitution	Depreciation/Total Assets	Leary & Roberts, 2005, Titman and Wessel 1988, Chen, 2017
Uniqueness	Selling Expense/Sales	Titman & Wessel 1988, Faulkender and Petersen, 2006, Chen,2017
Firm Size	Natural Logarithm of Sales	Titman & Wessel 1988 , Atli,2006 , Hovakimian et al,1988, Chen,2017
Profitability	Operating Income/- Total Assets	Leary & Roberts,2005, Titman & Wessel 1988, Chen 2017
Income Volatility	Standard Deviation(SD) of Percentage Change In Operating Income	Leary & Roberts,2005, Titman & Wessel 1988, Chen,2017

Chapter 4

Results

4.1 Descriptive Statistics

The basic characteristics of the data is defined in descriptive statistics and simple, easy summary about the sample and measure is represented in the descriptive statistic. Descriptive Statistics includes Mean, Median, Minimum, Maximum, Standard Deviation.

TABLE 4.1: Descriptive Statistics

	Mean	Max	Min	Std.Dev.	Skewness	Kurtosis
Firm Growth	0.057	0.680	0.0000	0.076	3.004	15.404
Tax Shield Substitution	0.035	0.259	0.0003	0.025	3.021	20.385
Uniqueness	0.047	0.875	0.0000	0.073	5.442	46.311
Firm Size	8.189	12.582	0.4055	1.689	-0.481	4.753
Income Volatility	38.93	392.46	0.0120	53.895	1.584	7.539
Profitability	0.064	0.984	-1.157	0.116	-0.246	23.243

Firm Growth is calculated by dividing capital expenditures of the firm over the total assets of the firm. **Table: 4.1**, explains summary statistics about firm growth shows that mean value firm growth is 0.0571 and maximum value for firm growth is 0.6799 and minimum value for firm is 0.000026, while the standard deviation of firm growth is 0.0763. Tax shield substitution of the firm is calculated by dividing

the depreciation over the total assets of the firm. The mean value for tax shield substitution is 0.0353, while maximum value in this case 0.2586 and the minimum value in this case is 0.0003 while the value of Standard deviation is 0.0252.

Uniqueness of the firm is measured by dividing selling expense over the sales figure of the firm. The mean value for the variable of uniqueness is 0.0466 and while the maximum value of the firm uniqueness is 0.8750 and the minimum value in this case is 0.0000118. Standard deviation of the Uniqueness is of uniqueness is 0.0727.

Firm Size is calculated by taking the natural logarithm of the sales of the firm. The average size of the firms is 8.1887. The maximum value is 12.5823 while the minimum value is 0.4055 for the firm size, while the value of the standard deviation in this case is 1.6887. The variable of income volatility is calculated by taking the staking standard deviation of percentage change in operating income of the firm. Average value of the income volatility variable is 38.93 and the median of the income volatility of the firm is 21.357, maximum value of the income volatility of the firm is 392.4655 and the minimum value for the variable of the variable of income volatility of the firm is 0.0120 the value of standard deviation for the variable of income volatility of the firm is 53.89.

Profitability of the firm is calculated by dividing operating income over total assets of the firm. The mean value shows that on average firm profitability 0.0640 is while median value in this case was 0.0657 with the standard deviation of 0.1156 . The maximum value of the profitability of the firm is 0.9837 and loss of firms of the firms is -1.1574. On average Income volatility of the firms is 38.93% while minimum variation in firm's profits is 1.2%. On average firm grow at the rate 5.1% while maximum growth rate of firms is 67.99%. Average profitability of the firms in the sample is 6.2%. The data of the firm growth, tax shield substitution, uniqueness and Income volatility of the firm is positively skewed, while the firm size and profitability of the firms data is negatively skewed. Kurtosis is measure of peakness and flatness in the data. All of the variables in data series has value more than 3 it means it is leptokurtic having positive kurtosis with peaked curves.

4.1.1 Correlation Analysis

To explain the probability of multicollinearity in the data correlation analysis has been performed. Correlation matrix help us to identify how strongly or weakly are independent variables are related to one another and correlation also shows association or direction variables whether variables are negatively or positively associated with one another. It also shows the strength of association between variables whether it is strong, medium or weak. Highest correlation is observed between firm size and firm growth which is -0.581.

TABLE 4.2: Correlation Matrix

	1	2	3	4	5	6	7
1 Firm Growth	1						
2 Tax Shield Substitution	0.063	1					
3 Uniqueness	-0.033	-0.085	1				
4 Firm Size	-0.026	0.024	-0.293	1			
5 Income Volatility	-0.061	-0.006	-0.028	-0.13	1		
6 Profitability	0.051	0.076	-0.126	0.242	-0.257	1	
7 Equity Ratio	0.117	-0.076	0.063	0.018	-0.133	0.341	1

Firm growth has positive correlation with profitably and Tax shield substitution and the firm growth has negative correlation with Uniqueness, Firm Size and Income Volatility having values of -0.033,-0.026,-0.061 respectively. These value are not higher than create the problem if multicollinearity. Tax shield Substitution has positive correlation with the firm size (0.024) and Profitability (0.076) and tax shield substitution has negative correlation with the Uniqueness of the firm (-0.085) and income volatility (-0.006). Uniqueness of the firm is negatively correlated with firm size (-0.293), income volatility (-0.133) and profitability (-0.126).Firm size has negative correlation with income volatility (-0.133) of the firm and size of the firm has strong positive correlation of 0.242 with the profitability of the firm. Income Volatility of the firm has strong negative (-0.257) correlation with the profitability of the firm which is highest amongst all. The overall correlation results suggest that higher correlation between the independent variables does not exist. Firm Growth is positive correlated (0.117) with equity ratio, tax shield

substitution is negative (-0.076) correlated with the equity ratio. Uniqueness of the firm is positively (0.063) correlated with the equity ratio, size of the firm is also positively correlated (0.018) with the equity ratio. Income volatility of the firm is negatively correlated (-0.133) with the equity ratio, and Income volatility of the firm is positively (0.341) correlated with the equity ratio.

4.1.2 Variance Inflation Factor

To check multicollinearity Variance Inflation Factor (VIF) test is used. Results of the VIF test are reported in Table 4.3.

There is no multicollinearity if the Centered VIF is less than 5, and if in case the Centered VIF is more than 5 there is concern of multicollinearity and that must be resolved before running the regression model. Centered value of the firm growth, tax shield substitution, uniqueness, firm size, income volatility and profitability variables is less than 5 it mean there is no issue of multicollinearity in data and these variables can be regressed simultaneously.

TABLE 4.3: Variance Inflation Factor of Firm Growth, Tax Shield Substitution, Uniqueness, Firm Size, Income Volatility and Profitability

Variable	Uncentered VIF	Centered VIF
Firm Growth	1.578	1.011
Tax Shield Substitution	2.987	1.011
Uniqueness	1.566	1.109
Firm Size	27.514	1.121
Income Volatility	1.566	1.029
Profitability	1.486	1.137

The centered value of firm growth is 1.011, centered value tax shield substitution is 1.011, centered value of uniqueness is 1.109, centered value of firm size 1.121, centered value of income volatility is 1.029 and the centered value of Profitability is 1.137.

4.2 Diagnostic Test

It becomes important in panel data analysis which of the model is to be used in the study whether without fixed effect, with fixed effects or random effects. Different test are used to determine whether which model will be useful for the panel data analysis. Likelihood test is used to determine whether which model is better between Common effect model and fixed effect model.

H0: Common effect model is appropriate.

H1: Fixed effect model is appropriate.

Null Hypothesis will be rejected if the answer is significant and if the answer is insignificant we will use the null hypothesis. As reported in below table 4.4 answer is significant so fixed effect model will be used.

TABLE 4.4: Likelihood Ratio Tests

Effects Test	Statistic	d.f.	Prob.
Cross-section F	15.52	-74,969	0
Cross-section Chi-square	820.802	74	0

Hausman Test is used to identify which model is appropriate between Fixed effect model and Random effect model.

H0: Random effect model is appropriate.

H1: Fixed effect model is appropriate

Null hypothesis will be rejected if the answer is significant and in case if answer is insignificant, we will use the null hypothesis. As reported in below Table 4.5 the answer is significant so we will use fixed effect mode.

TABLE 4.5: Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	24.232424	6	0.0005

4.3 Results of Fixed Effect Model Showing the Effect of Various Firm Characteristics on Equity Level of the Firms

Adjusted Coefficient of determination value (Adj. $R^2 = 0.5794$) suggests that independent variables explain 57.94% variation in dependent variables. Coefficient of Determination value ($R^2 = 0.6115$) indicated that explanatory power of the model is strong. The intercept is also significant (0.0000) which indicates probability of the variables that are omitted it means that besides our variables that are included in our study there are some variables that may impact Equity Ratio but are not included in this study. Firm growth, Income volatility and Profitability has significant positive relationship with Equity ratio while Firm size has significant negative relationship with equity ratio.

The first variable that affects firm equity level is firm growth with a p value of 0.0251. The coefficient of growth has a positive sign with a value of 0.14122. This significant positive relationship of firm growth with equity ratio is according to various other studies. It also suggests that for growing firms, agency costs are expected to be high as growing firms are flexible regarding their investments in the future. As in such cases, bondholders of the firm will assess and consider that a growing firm will opt for projects in the future that carry more risk, considering their risky investments in the near future, the bondholders will impose high lending costs on the growing firms. Thus, such firms with higher debt costs will be using less debt and more equity in their capital structure. (Titman et al., 2011; Barclay, Smith, & Morellec, 2006; Rajan & Zingales, 1996; Shah & Khan, 2007).

TABLE 4.6: Impact of Equity Ratio on Various Firm Characteristics Variables

Variable	Fixed Effect			Random Effect			Common Coefficient		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
C	1.018	19.971	0.000	0.946	19.876	0.000	0.772	22.262	0.000
Firm Growth	0.141	2.243	0.025	0.168	2.714	0.007	0.284	3.668	0.000
Tax Shield Substitution	-0.322	-1.494	0.136	-0.367	-1.747	0.081	-0.826	-3.519	0.001
Uniqueness	0.026	0.334	0.738	0.076	1.023	0.306	0.253	2.964	0.003
Firm Size	-0.033	-5.632	0.000	-0.025	-4.772	0.000	-0.005	-1.342	0.180
Income Volatility	0.000	-2.023	0.043	0.000	-2.082	0.038	0.000	-1.256	0.210
Profitability	0.381	8.117	0.000	0.402	8.732	0.000	0.633	11.673	0.000
R-squared			0.612			0.106			0.151
Adjusted R-squared			0.579			0.101			0.146
F-statistic			19.064			20.645			30.922
Prob(F-statistic)			0.000			0.000			0.000

Tax Shield substitution has P value of 0.1356 with negative sign of coefficient-0.321995. Tax Shield substitution is not significantly related to the equity ratio thus depreciation has no impact on equity ratio. Equity financing decisions in context of Pakistani market are independent of level of depreciation and this relationship is according to another study by (Shah & Khan, 2007). This relationship of tax shield substitution in our study is not according to the expectation of Trade Off Theory.

The uniqueness of the firm has a P-value 0.7381 with positive coefficient sign of 0.025769 thus uniqueness of the firm is highly insignificant in explaining the equity level of non-financial firms (Panda, Mohapatra, & Moharana, 2013).

Firm Size has significant negative relationship with equity ratio with P-Value of 0.000 and negative co-efficient sign of -0.032863 this relationship of firm size with equity ratio suggests that smaller the size of the firm, more will be the equity financing in context of Pakistani market.

Various studies confirm this relationship and endorses that large firms carry higher level of debt and thus are highly leveraged as compared to equity level (Titman et al., 2011; Hovakimian et al., 2001; Al-Ajmi et al., 2009), from this relationship we can infer that in larger size Pakistani firms employ debt in their capital structure. Income Volatility (IV) of the firm is measured by taking standard deviation of percentage change in operating income of the firm. Income Volatility has significant negative relationship with equity ratio with P value of 0.0433 and negative coefficient sign with value of -8.64. The relationship suggest that with the decrease in business risk of the firm the probability of financing more equity by the firms will rise.

Profitability is the one of the important explanatory variables our study and is used to test the Pecking Order Hypothesis. Profitability has strong significant positive relationship with equity ratio with p value of 0.0000 and co-efficient of 0.380598 which suggest that profitable firms will have higher equity level as compared to the debts. Moreover over sample of firms in study is of those firms that issue secondary equity thus such firms that are profitable prefer to finance equity.

Adjusted coefficient of determination value ($\text{Adj.R}^2 = 0.1461$) suggest that independent variables explain 14% variation in depend variables in common coefficient model. In common coefficient model growth of firm has significant positive relationship with the equity ratio with positive coefficient sign while the value of coefficient is 0.2841. Tax shield of the firm has significant negative relationship with the equity ratio of the firm with value of coefficient as -0.8256. Uniqueness of the firms has significant positive relationship with the equity ratio while the value of coefficient is 0.2530 and p-value is 0.0031. Another variable that is significant in common coefficient model is profitability with p-value 0.0000 and coefficient 0.6327. Significant positive relationship of firm profitability with equity ratio suggests that profitable firms in Pakistan prefer equity financing over debt financing. Variable of profitability has significant positive relationship with equity ratio in common coefficient, fixed effect and random effect model. In common coefficient model income volatility has no impact on the equity ratio which means firms financing behavior is indifferent to the business risk of the firms in contest of Pakistani market. Firm Size has shown no impact on equity ratio as well in common coefficient model.

In random effect model adjusted coefficient of determination value ($\text{Adj.R}^2 = 0.1010$) is 10% only. This Adjusted R-square value suggest variables of profitability, firm growth, tax shield substitution, income volatility, firms size ,and uniqueness only explain 10% variation in equity ratio. In random effect model firm growth has significant positive relationship with the equity ratio of the firm while the coefficient of firm growth is positive with the coefficient value of 0.1680. Furthermore in random effect model the tax shield substitution has significant negative relationship with the equity ratio of the firm with negative coefficient sign and value of coefficient is -0.3672. Uniqueness of the firm has significant positive relationship with equity ratio of the firm with value of coefficient of firm uniqueness is 0.0764. In random effect model the firm size has significant negative relationship with the equity ratio while coefficient of firm size has value of -0.0246. Negative relationship of firm size with equity ratio is same in random effect and fixed effect model.

Chapter 5

Discussion and Conclusion

5.1 Conclusion

The first aim of our study was to explore determinants of equity financing behavior of non-financial firms in Pakistan and examined capital structure from the perspective of equity. The sample consist of 78 non-financial firms listed on Pakistan Stock Exchange with time frame of 14 years from 2004-2017. Descriptive statistics of selected variables are also mentioned in the study. Fixed effect regression model is selected in our study for exploring determinants of equity financing behavior of non-financial firms. Out of six variables four variables are significant and contribute to the change in equity level of the firm and these include firm growth, firm size, income volatility and profitability .Firm growth and profitability had positive coefficient sign with equity ratio while variable of firm size had negative coefficient sign. Uniqueness has positive coefficient sign but its relationship with the equity ratio is insignificant.

Positive relationship of firm growth with equity ratio suggests that for growing firms agency costs are higher and growing firms prefer higher equity levels and higher equity financing as compared to any other source of finance. It is also evident from various other studies that mangers of growing firms does not want to bear financial risks beside operational risk of the new projects thus they prefer less debt levels. Non-debt tax shield which includes depreciation has insignificant

relation with equity ratio, the reason for this relationship is that depreciation is not a factor in deciding level of equity financing in capital structure of the firm and this relationship is according to other studies in literature.

Uniqueness of the firm is measured by dividing selling expense over the sales and has insignificant relation with equity ratio. This relationship suggest that uniqueness of the firm does not matter in the equity financing decisions of the non-financial companies in context of Pakistani market. Firm Size has negative relationship with the equity ratio this relationship suggest Larger the size of the firm lower will be the equity level of the firm while higher will be the debt financing.

Firm Size is negatively related to equity ratio this relationship suggest Larger the size of the firm lower will be the equity level of the firm while profitability of the firm has significant positive relationship with equity ratio and this relationship suggests that profitable firms in Pakistan prefer equity financing thus profitability is important factor in deciding the equity level of the firms. Negative relationship of income volatility with the equity ratio suggest that when there is earning volatility in the business operations or when there is inefficiency in the practices of management then the equity financing will be lower.

5.2 Recommendation

Finds of our research study indicate that firms should keep proper control on different variations and furthermore different important factors should be considered as it is helpful in identifying factors that impact equity financing decision of the firms. Moreover special focus and attention should be given to the firms specific characteristics that have impact on equity financing decisions of the firms. Factors of firm growth tax shield substitution, Income volatility and profitability should be considered by the non-financial firms when making decisions regarding equity financing as it will help them in saving time in the course of their decisions and implementation. It also suggests that the factor of uniqueness of the firm doesn't influence the equity financing decision of the firm. For researchers, foreign investors

finance professionals, investment companies, government officials working in Pakistan this study is useful in understanding factors that impact the equity financing decisions of the firms.

5.3 Future Direction

In future research should focus on the other firm specific characteristics that may impact equity financing decisions of the firm such as asset structure, liquidity, political risk and foreign exchange risk.

5.4 Limitations

While this research explores the determinants of equity financing and provides detailed insight on the factors that carry importance in equity financing decisions of the companies but this research is restricted to Pakistani financial market only. Additionally financial markets such as Indian market can also be included in sample size for comparative analysis purpose.

References

- Abor, J., & Biekpe, N. (2005). What determines the capital structure of listed firms in ghana? *African Finance Journal*, 7(1), 37–48.
- Abor, J., & Biekpe, N. (2009). How do we explain the capital structure of smes in sub-saharan africa? evidence from ghana. *Journal of Economic Studies*, 36(1), 83–97.
- Abraham, R., & Harrington, C. (2011). Seasoned equity offerings: Characteristics of firms. *International Journal of Business, Humanities and Technology*, 1(3), 26–33.
- Afza, T., & Hussain, A. (2011). Determinants of capital structure: A case study of automobile sector of pakistan. , 4(2), 20–40.
- Akhigbe, A., & Whyte, A. M. (2001). The market’s assessment of the financial services modernization act of 1999. *Financial Review*, 36(4), 119–138.
- Akintoye, I. (2008). Sensitivity of performance to capital structure: A consideration for selected food and beverages companies in nigeria. *Akintoye, IR (2008) “Sensitivity of Performance to Capital Structure: A Consideration for Selected Food and Beverages Companies in Nigeria”*. *Journal of Social Sciences, Hellenic Open University, Greece*, 7(1), 29–35.
- Al-Ajmi, J., Abo Hussain, H., & Al-Saleh, N. (2009). Decisions on capital structure in a zakat environment with prohibition of riba: The case of saudi arabia. *The journal of risk finance*, 10(5), 460–476.
- Alimari, M. B. (2003). Determinants of corporate borrowing in the arab world. , 16(6), 18–44.
- Al-Najjar, B., & Taylor, P. (2008). The relationship between capital structure and ownership structure: New evidence from jordanian panel data. *Managerial*

- Finance*, 34(12), 919–933.
- Altman, E. I. (1984). A further empirical investigation of the bankruptcy cost question. *the Journal of Finance*, 39(4), 1067–1089.
- Altman, E. I., & Karlin, B. J. (2010). New york university salomon center leonard n. stern school of business. , 4(3), 218–239.
- Andújar-Sánchez, M., Jara-Pérez, V., & Cámara-Artigas, A. (2007). Thermodynamic determination of the binding constants of angiotensin-converting enzyme inhibitors by a displacement method. *FEBS letters*, 581(18), 3449–3454.
- Ang, J. S., & Jung, M. (1993). An alternate test of myers' pecking order theory of capital structure: the case of south korean firms. *Pacific-Basin Finance Journal*, 1(1), 31–46.
- Antoniou, A., Guney, Y., & Paudyal, K. (2002). The determinants of corporate capital structure: Evidence from european countries. , 2(1), 292–312.
- Ariff, M., Taufiq, H., & Shamsheer, M. (2008). How capital structure adjusts dynamically during financial crises. *Corporate finance review*, 13(3), 11–24.
- Babu, N., & Chalam, G. (2014). Determinants of capital structure of indian textile industry—an empirical analysis. *International Journal of Advance Research*, 2(2), 1–11.
- Baker, M., & Wurgler, J. (2002). Market timing and capital structure. *The journal of finance*, 57(1), 1–32.
- Barclay, M. J., Smith, C. W., Jr, & Morellec, E. (2006). On the debt capacity of growth options. *The Journal of Business*, 79(1), 37–60.
- Bayless, M., & Chaplinsky, S. (1996). Is there a window of opportunity for seasoned equity issuance? *The Journal of Finance*, 51(1), 253–278.
- Bayrakdaroglu, A., Ege, I., & Yazici, N. (2013). A panel data analysis of capital structure determinants: Empirical results from turkish capital market. *International Journal of Economics and Finance*, 5(4), 131–140.
- Bell, K., & Vos, E. (2009). Sme capital structure: The dominance of demand factors. *22nd Australasian Finance and Banking Conference*, 26(14), 42–61.

- Bevan, A. A., & Danbolt, J. (2002). Capital structure and its determinants in the uk-a decompositional analysis. *Applied Financial Economics*, 12(3), 159–170.
- Booth, L., Aivazian, V., Demirguc-Kunt, A., & Maksimovic, V. (2001). Capital structures in developing countries. *The journal of finance*, 56(1), 87–130.
- Brigham, E. F., & Ehrhardt, M. C. (2008). Financial management. theory and practice. 12e. thompson learning. , 3(2), 14–26.
- Cai, J., & Loughran, T. (1998). The performance of japanese seasoned equity offerings, 1971–1992. *Pacific-Basin Finance Journal*, 6(5), 395–425.
- Campello, M. (2003). Capital structure and product markets interactions: evidence from business cycles. *Journal of financial economics*, 68(3), 353–378.
- Campello, M. (2006). Debt financing: Does it boost or hurt firm performance in product markets? *Journal of Financial Economics*, 82(1), 135–172.
- Cassar, G., & Holmes, S. (2003). Capital structure and financing of smes: Australian evidence. *Accounting & Finance*, 43(2), 123–147.
- Céspedes, J., González, M., & Molina, C. A. (2010). Ownership and capital structure in latin america. *Journal of business research*, 63(3), 248–254.
- Chakravarthy, B. S. (1986). Measuring strategic performance. *Strategic management journal*, 7(5), 437–458.
- Chen, J. J. (2004). Determinants of capital structure of chinese-listed companies. *Journal of Business research*, 57(12), 1341–1351.
- Chepkemoi, P. (2013). An analysis of the effects of capital structure of small and medium enterprises on their financial performance: a case of nakuru town. , 3(2), 134–164.
- Choe, K., Whittington, D., & Lauria, D. T. (1996). The economic benefits of surface water quality improvements in developing countries: a case study of davao, philippines. *Land Economics*, 18(9), 519–537.
- Clowry, K. (2010). Debt-to-equity conversion in the uk and europe. *European Company Law*, 7(2), 51–58.
- Cressy, R. (1995). Business borrowing and control: A theory of entrepreneurial types. *Small business economics*, 7(4), 291–300.

- Cronqvist, H., & Nilsson, M. (2005). The choice between rights offerings and private equity placements. *Journal of Financial economics*, 78(2), 375–407.
- Dawood, M., Moustafa, E., & El-Hennawi, M. (2011). The determinants of capital structure in listed egyptian corporations. *Middle Eastern Finance and Economics*, 9(1), 83–99.
- Deakins, D., Whittam, G., & Wyper, J. (2010). Smes' access to bank finance in scotland: an analysis of bank manager decision making. *Venture Capital*, 12(3), 193–209.
- DeAngelo, H., & Masulis, R. W. (1980). Optimal capital structure under corporate and personal taxation. *Journal of financial economics*, 8(1), 3–29.
- Deesomsak, R., Paudyal, K., & Pescetto, G. (2004). The determinants of capital structure: evidence from the asia pacific region. *Journal of multinational financial management*, 14(4-5), 387–405.
- De Jong, A., Kabir, R., & Nguyen, T. T. (2008). Capital structure around the world: The roles of firm-and country-specific determinants. *Journal of Banking & Finance*, 32(9), 1954–1969.
- Delcoure, N. (2007). The determinants of capital structure in transitional economies. *International Review of Economics & Finance*, 16(3), 400–415.
- de Mesquita, J. M. C., & Lara, J. E. (2003). Capital structure and profitability: the brazilian case. , 16(8), 265–286.
- De Miguel, A., & Pindado, J. (2001). Determinants of capital structure: new evidence from spanish panel data. *Journal of corporate finance*, 7(1), 77–99.
- Donaldson, G. (2000). Corporate debt capacity: A study of corporate debt policy and the determination of corporate debt capacity. , 3(1), 49–63.
- Durand, D. (1952). Costs of debt and equity funds for business: trends and problems of measurement. *Conference on research in business finance*, 6(4), 215–262.
- Eckbo, B. E., & Masulis, R. W. (1992). Adverse selection and the rights offer paradox. *Journal of financial economics*, 32(3), 293–332.
- Eldomiaty, T. I. (2008). Determinants of corporate capital structure: evidence

- from an emerging economy. *International Journal of Commerce and Management*, 17(1/2), 25–43.
- Fama, E. F., & French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *The review of financial studies*, 15(1), 1–33.
- Fama, E. F., & Miller, M. H. (1972). The theory of finance. , 3(1), 129–141.
- Fatemi, A. M. (1988). The effect of international diversification on corporate financing policy. *Journal of Business Research*, 16(1), 17–30.
- Frank, M. Z., & Goyal, V. K. (2008). Trade-off and pecking order theories of debt. *Handbook of empirical corporate finance*, 14(8), 135–202.
- Gardner, N. (1996). Tcu daily skiff, vol. 94, no. 34. , 12(4), 123–138.
- Gaud, P., Hoesli, M., & Bender, A. (2007). Debt-equity choice in europe. *International Review of Financial Analysis*, 16(3), 201–222.
- Gibson, B. (2002). Clusters of financial structure in australian small firms. *Small Enterprise Research*, 10(1), 59–74.
- Githire, C., & Muturi, W. (2015). Effects of capital structure on financial performance of firms in kenya: Evidence from firms listed at the nairobi securities exchange. *International Journal of Economics, Commerce and Management*, 3(4), 1–13.
- Gitman, L. J., & Maxwell, C. E. (1985). Financial activities of major us firms: Survey and analysis of fortune's 1000. *Financial Management*, 4(3), 57–65.
- Gleason, K. C., Mathur, L. K., & Mathur, I. (2000). The interrelationship between culture, capital structure, and performance: evidence from european retailers. *Journal of business research*, 50(2), 185–191.
- Glen, J., & Pinto, B. (1994). Debt or equity? how firms in developing countries choose. , 6(2), 134–148.
- Gomez-Mejia, L. R., Nunez-Nickel, M., & Gutierrez, I. (2001). The role of family ties in agency contracts. *Academy of management Journal*, 44(1), 81–95.
- Graham, C. (n.d.). Hall., patrick j hutchinson and nicos michaelal (2004) determinants of the capital structures of european smes. *Journal of Business Finance and Accounting*, 3(5).

- Green, C. J., Murinde, V., & Suppakitjarak, J. (2002). Corporate financial structures in india. , 4(1), 178–197.
- Grossman, S. J., & Hart, O. D. (1982). Corporate financial structure and managerial incentives. *The economics of information and uncertainty*, 3(1), 107–140.
- Gülşen, A. Z., & Ülkütaş, Ö. (2012). Sermaye yapısının belirlenmesinde finansman hiyerarşisi teorisi ve ödünleşme teorisi: İmkb sanayi endeksinde yer alan firmalar üzerine bir uygulama. *Uluslararası Yönetim İktisat ve İşletme Dergisi*, 8(15), 49–59.
- Hamilton, R. T., & Fox, M. A. (1998). The financing preferences of small firm owners. *International Journal of Entrepreneurial Behavior & Research*, 4(3), 239–248.
- Hansen, R. S. (1988). The demise of the rights issue. *The Review of Financial Studies*, 1(3), 289–309.
- Hansen, R. S., & Crutchley, C. (1990). Corporate earnings and financings: An empirical analysis. *Journal of Business*, 14(3), 347–371.
- Hansen, R. S., & Pinkerton, J. M. (1982). Direct equity financing: A resolution of a paradox. *The Journal of Finance*, 37(3), 651–665.
- Haron, R. (2014). Capital structure inconclusiveness: evidence from malaysia, thailand and singapore. *International Journal of Managerial Finance*, 10(1), 23–38.
- Harris, M., & Raviv, A. (1991). The theory of capital structure. *the Journal of Finance*, 46(1), 297–355.
- Healy, P. M., & Palepu, K. G. (1990). Earnings and risk changes surrounding primary stock offers. *Journal of Accounting Research*, 28(1), 25–48.
- Helwege, J., & Liang, N. (1996). Is there a pecking order? evidence from a panel of ipo firms. *Journal of financial economics*, 40(3), 429–458.
- Högfeldt, P., & Oborenko, A. (2005). Does market timing or enhanced pecking order determine capital structure? *European Corporate Governance Institute (ECGI) Research Paper*, 34(72), 14–54.
- Holmes, S., & Kent, P. (1991). An empirical analysis of the financial structure

- of small and large australian manufacturing enterprises. *Journal of small business finance*, 1(2), 141–154.
- Hovakimian, A., Opler, T., & Titman, S. (2001). The debt-equity choice. *Journal of Financial and Quantitative analysis*, 36(1), 1–24.
- Hutchinson, P. (2004). How much does growth determine smes' capital structure? *Small Enterprise Research*, 12(1), 81–92.
- Ibrahim, E. E.-S. (2009). The impact of capital-structure choice on firm performance: empirical evidence from egypt. *The journal of risk Finance*, 18(8), 346–358.
- Iqbal, A., & Kume, O. (2014). Impact of financial crisis on firms' capital structure in uk, france, and germany. *Multinational Finance Journal*, 18(4), 249–280.
- Irwin, D., & Scott, J. M. (2010). Barriers faced by smes in raising bank finance. *International journal of entrepreneurial behavior & research*, 16(3), 245–259.
- Jalilvand, A., & Harris, R. S. (1984). Corporate behavior in adjusting to capital structure and dividend targets: An econometric study. *The journal of Finance*, 39(1), 127–145.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, 76(2), 323–329.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305–360.
- Jumba, W. (2002). Initial public offer performance in kenya. *Unpublished MBA project*, 36(8), 206–238.
- Kanwar, A. K. A. (2007). Booth revisited: Identifying the determinants of capital structure in the sugar sector. *Market Forces*, 3(2), 12–24.
- Kayhan, A., & Titman, S. (2007). Firms' histories and their capital structures. *Journal of financial Economics*, 83(1), 1–32.
- Kayo, E. K., & Kimura, H. (2011). Hierarchical determinants of capital structure. *Journal of Banking & Finance*, 35(2), 358–371.
- Kemsley, D., & Nissim, D. (2002). Valuation of the debt tax shield. *The Journal*

- of finance*, 57(5), 2045–2073.
- Khilji, N. M., & Nabi, I. (1993). The behaviour of stock returns in an emerging market: A case study of pakistan [with comments]. *The Pakistan Development Review*, 32(4), 593–604.
- Kiefer, R. (2003). Essays on corporate distress and the german financial system. , 14(3-4), 102–122.
- Kieschnick, R., Laplante, M., & Moussawi, R. (2006). Corporate working capital management: determinants and consequences. *International Journal of Managerial Finance*, 3(2), 164–177.
- Kim, M. K., & Wu, C. (1988). Effects of inflation on capital structure. *Financial Review*, 23(2), 183–200.
- Kim, W., & Weisbach, M. S. (2008). Motivations for public equity offers: An international perspective. *Journal of Financial Economics*, 87(2), 281–307.
- Kjellman, A., & Hansén, S. (1995). Determinants of capital structure: Theory vs. practice. *Scandinavian Journal of Management*, 11(2), 91–102.
- Kongmanila, X., & Kimbara, T. (2007). Corporate financing and performance of smes: The moderating effects of ownership types and management styles. *The Journal of the Malaysian Institute of Management*, 42(2), 119–133.
- Korajczyk, R. A., & Levy, A. (2003). Capital structure choice: macroeconomic conditions and financial constraints. *Journal of financial economics*, 68(1), 75–109.
- Krasker, W. S. (1986). Stock price movements in response to stock issues under asymmetric information. *The journal of Finance*, 41(1), 93–105.
- Kraus, A., & Litzenberger, R. H. (1973). A state-preference model of optimal financial leverage. *The journal of finance*, 28(4), 911–922.
- Krishnan, V. S., & Moyer, R. C. (1997). Performance, capital structure and home country: An analysis of asian corporations. *Global Finance Journal*, 8(1), 129–143.
- Kwansa, F. A., & Cho, M.-H. (1995). Bankruptcy cost and capital structure: the significance of indirect cost. *International Journal of Hospitality Management*, 14(4), 339–350.

- Lambrechts, I., & Mostert, F. (1980). An analysis of the behaviour of market prices during rights issues. *Investment Analysts Journal*, 9(15), 25–33.
- La Porta, R., Lopez-de Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The journal of finance*, 54(2), 471–517.
- Leary, M. T., & Roberts, M. R. (2005). Do firms rebalance their capital structures? *The journal of finance*, 60(6), 2575–2619.
- Lee, K. C., & Kwok, C. C. (1988). Multinational corporations vs. domestic corporations: International environmental factors and determinants of capital structure. *Journal of International Business Studies*, 19(2), 195–217.
- Liu, P., Peterman, K., Yu, C., & Schafer, B. (2012). Cold-formed steel shear walls in ledger-framed buildings. *Annual Stability Conference, Structural Stability Research Council*, 4(1), 27–47.
- López-Gracia, J., & Sánchez-Andújar, S. (2007). Financial structure of the family business: Evidence from a group of small spanish firms. *Family Business Review*, 20(4), 269–287.
- Machangu, B. (2003). Corporate finance: overview of company financing in tanzania. *African Journal of Finance and Management*, 12(1), 96–108.
- MacKie-Mason, J. K. (1990). Do taxes affect corporate financing decisions? *The journal of finance*, 45(5), 1471–1493.
- Mahmud, M., & Qayyum, A. (2003). The relationship between economic growth and capital structure of listed companies: Evidence of japan, malaysia, and pakistan [with comments]. *The Pakistan Development Review*, 7(3), 727–750.
- Margaritis, D., & Psillaki, M. (2010). Capital structure, equity ownership and firm performance. *Journal of banking & finance*, 34(3), 621–632.
- Marsh, P. (1982). The choice between equity and debt: An empirical study. *The Journal of finance*, 37(1), 121–144.
- Masnoon, M., & Saeed, A. (2014). Capital structure determinants of kse listed automobile companies. *Masnoon & Saeed (2014) "Capital Structure Determinants of KSE Listed Automobile Companies" European Scientific Journal, May edition*, 10(13), 451–461.

- Masulis, R. W., & Korwar, A. N. (1986). Seasoned equity offerings: An empirical investigation. *Journal of financial economics*, 15(2), 91–118.
- Mayers, S., & Majluf, N. (1984). Corporate financing and investment decision, when firms have decisions that investors do not have. *Journal of Financial Economic*, 3(1), 12–24.
- McKnight, P. J., & Weir, C. (2009). Agency costs, corporate governance mechanisms and ownership structure in large uk publicly quoted companies: A panel data analysis. *The quarterly review of economics and finance*, 49(2), 139–158.
- McLaughlin, R., Safieddine, A., & Vasudevan, G. K. (1996). The operating performance of seasoned equity issuers: Free cash flow and post-issue performance. *Financial Management*, 17(4), 41–53.
- Meggison, W. L., Smart, S. B., & Gitman, L. J. (2007). Corporate finance. , 4(2), 36–57.
- Miller, M. H. (1977). Debt and taxes. *the Journal of Finance*, 32(2), 261–275.
- Minton, B. A., & Wruck, K. H. (2002). Financial conservatism: Evidence on capital structure from low leverage firms. , 3(1), 43–66.
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American*, 1(4), 3–16.
- Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: a correction. *The American economic review*, 53(3), 433–443.
- Munyo, I., et al. (2005). The determinants of capital structure: Evidence from an economy without [a] stock market. *Montevideo, Uruguay: Centro de Estudios de la Realidad Económica y Social (CERES). Draft*, 5(1), 96–118.
- Mwangangi, M. (2011). The information content of seasoned equity issue announcements for firms quoted at the nse. *Unpublished MBA Research Project. University of Nairobi, Kenya*, 16(6), 298–308.
- Mwangi, L. W., Makau, M. S., & Kosimbei, G. (2014). Relationship between capital structure and performance of non-financial companies listed in the nairobi securities exchange, kenya. *Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics*, 1(2), 72–90.

- Myers, S. C. (1984). The capital structure puzzle. *The journal of finance*, 39(3), 574–592.
- Myers, S. C. (2001). Capital structure. *Journal of Economic perspectives*, 15(2), 81–102.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics*, 13(2), 187–221.
- Nagano, M. (2003). Determinants of corporate capital structure in east asia: Are there differences from the industrialized countries. *Waseda University Institute of Finance Working Paper Series*, 10(4), 57–68.
- Nejadmalayeri, A. (2001). On the effect of the term structure of interest rates on corporate capital structure: Theory and evidence. , 4(2), 2–16.
- Newman, A., Gunessee, S., & Hilton, B. (2012). Applicability of financial theories of capital structure to the chinese cultural context: A study of privately owned smes. *International Small Business Journal*, 30(1), 65–83.
- Njoroge, M. (2004). An analysis of performance of initial public offerings, a case of nairobi stock exchange. *MBA project*, 19(7), 78–92.
- NZAI, S. K. (2014). The effect of seasoned equity offerings on stock price performance of firms listed at the nairobi securities exchange. , 4(2), 146–157.
- Olowe, R. A. (1997). Financial management: concepts, analysis and capital investments. , 1(2), 216–228.
- Onsumo, P. (2014). The relationship between capital structure and agency costs of firms listed at the nairobi securities exchange. *Published Journal, University of Nairobi*, 3(1), 32–54.
- Panda, B., Mohapatra, S., & Moharana, S. (2013). Capital structure of indian steel companies: Its determinants. *Panda, B., Mohapatra, S., and Moharana, S.(2013). Capital Structure of Indian Steel Companies: Its Determinants. 3rd Biennial Conference of the Indian Academy of Management (IAM)*, 8(2), 134–146.
- Pandey, I. M. (2001). Capital structure and the firm characteristics: evidence from an emerging market. , 8(2), 156–168.

- Rajan, R. G., & Zingales, L. (1996). Financial dependence and growth. , *12*(2), 26–38.
- Ramirez, J. (2011). Handbook of corporate equity derivatives and equity capital markets. , *605*(2), 312–338.
- Read, L. H. (2002). The financing of small business: A comparative study of male and female small business owners. , *16*(8), 136–156.
- Riahi-Belkaoui, A. (1999). Value added reporting and research: state of the art. , *13*(8), 183–196.
- Romano, C. A., Tanewski, G. A., & Smyrniotis, K. X. (2001). Capital structure decision making: A model for family business. *Journal of business venturing*, *16*(3), 285–310.
- Ross, S. A. (1977). The determination of financial structure: the incentive-signalling approach. *The bell journal of economics*, *6*(1), 23–40.
- Sayılgan, G., Karabacak, H., & Küçükkocaoğlu, G. (2006). The firm-specific determinants of corporate capital structure: Evidence from turkish panel data. *Investment Management and Financial Innovations*, *3*(3), 125–139.
- Sbeiti, W. (2010). The determinants of capital structure: Evidence from the gcc countries. *International Research Journal of Finance and Economics*, *47*(2), 56–82.
- Schulze, W. S., Lubatkin, M. H., Dino, R. N., & Buchholtz, A. K. (2001). Agency relationships in family firms: Theory and evidence. *Organization science*, *12*(2), 99–116.
- Seppa, R. (2008). Capital structure decisions: research in estonian non-financial companies. *Baltic Journal of Management*, *3*(1), 55–70.
- Shah, A., & Khan, S. (2007). Determinants of capital structure: Evidence from pakistani panel data. *International review of business research papers*, *3*(4), 265–282.
- Shyam-Sunder, L., & Myers, S. C. (1999). Testing static tradeoff against pecking order models of capital structure. *Journal of financial economics*, *51*(2), 219–244.
- Singh, A., & Hamid, J. (1992). Corporate financial structures in developing

- countries. , *22*(2), 8–18.
- Smith Jr, C. W. (1977). Alternative methods for raising capital: Rights versus underwritten offerings. *Journal of financial economics*, *5*(3), 273–307.
- Song, H.-S. (2005). Capital structure determinants an empirical study of swedish companies. , *9*(3), 38–68.
- Titman, S., Keown, A. J., Martin, J. D., & Martin, T. (2011). Financial management: Principles and applications. , *11*(2), 29–56.
- Tong, G., & Green, C. J. (2005). Pecking order or trade-off hypothesis? evidence on the capital structure of chinese companies. *Applied economics*, *37*(19), 2179–2189.
- Ursel, N. D. (2006). Rights offerings and corporate financial condition. *Financial Management*, *35*(1), 31–52.
- Velnampy, T., & Niresh, J. A. (2012). The relationship between capital structure and profitability. *Global Journal of Management and Business Research*, *12*(13), 35–85.
- Voutsinas, K., & Werner, R. A. (2011). Credit supply and corporate capital structure: Evidence from japan. *International Review of Financial Analysis*, *20*(5), 320–334.
- Wan Mahmood, W., Affandi, S., Baharuddin, N., Mohamad, Z., & Shamsudin, N. (2011). Capital structure of property companies in malaysia'. *International Research Journal of Finance and Economics*, *74*(3), 198–206.
- Warner, J. B. (1977). Bankruptcy costs: Some evidence. *The journal of Finance*, *32*(2), 337–347.
- Welch, I. (2004). Capital structure and stock returns. *Journal of political economy*, *112*(1), 106–131.
- White, R. W., & Lusztig, P. A. (1980). The price effects of rights offerings. *Journal of Financial and Quantitative Analysis*, *15*(1), 25–40.
- Xu, X., & Birge, J. R. (2008). Operational decisions, capital structure, and managerial compensation: A news vendor perspective. *The Engineering Economist*, *53*(3), 173–196.
- Zeitun, R., Temimi, A., & Mimouni, K. (2017). Do financial crises alter the

- dynamics of corporate capital structure? evidence from gcc countries. *The Quarterly Review of Economics and Finance*, 63, 21–33.
- Zeitun, R., & Tian, G. G. (2014). Capital structure and corporate performance: evidence from jordan. *Australasian Accounting Business & Finance Journal, Forthcoming*, 14(6), 6–18.
- Zheng, M. (2013). Empirical research of the impact of capital structure on agency cost of chinese listed companies. *International Journal of Economics and Finance*, 5(10), 118–125.