Impact of Banking Sector Development on Capital Structure of Non-financial Sector Firms in Pakistan

¹Umar Farooq , ²Jaleel Ahmed Malik, ³Lakhi Muhammad

¹Department of business studies, Pakistan Institute of development Economics (PIDE), Pakistan
umarfarooq_17@pide.edu.pk

²Department of management sciences, Capital University of Science and Technology (CUST), Pakistan
jaleelahmed11@gmail.com

³Department of management sciences, Capital University of Science and Technology (CUST), Pakistan
lakhi.muhammad@cust.edu.pk

ARTICLE DETAILS

History

Revised format: November 2018

Available Online: December 2018

Keywords

Debt to Equity Ratio,

Debt to Asset Ratio,

Capital Adequacy Ratio,

Return on Assets

JEL Classification:

F34, G12

ABSTRACT

Objective: This study exemplifies how banking sector development influences capital structure of non-financial Sector firms.

Methodology: In this study, deductive approach has been used and capital structure used as explained variable. Banking sector development used as explanatory variable and proxies by five key ratios. The six years data ranges from the year 2010 to 2015 used and fixed effect model applied for regression analysis.

Findings: The statistical results indicate that first and 4th hypotheses partially accepted while second and third hypotheses fully rejected. The results of study recommend financing policy for finance managers to consider banking sector development while deciding capital structure.

Originality: This study may mark as first study in Pakistan which checks the regression among discussed variables and also the behavior of change.

© 2018 The authors, under a Creative Commons Attribution-NonCommercial 4.0

Corresponding author's email address: umarfarooq_17@pide.edu.pk

Recommended citation: ¹Farooq, U. ²Malik, J.A. ³Muhammad, L. (2018). Impact of Banking Sector Development on Capital Structure of Non-financial Sector Firms in Pakistan. Journal of Accounting and Finance in Emerging Economies, 4(2) 177-188

DOI: 10.26710/jafee.v4i2.400

1. Introduction

Capital structure commits with two types of financing i.e. equity financing and debt financing. Capital structure decision changes from industry to industry. Some companies prefer more debt and others more equity. There exists trade-off between these two types of financing which firms use to corroborate their funding requirements. While the companies go to equity financing then it offers the common stock, preferred stock or bonus shares to their stock holders. Companies offer the awesome rate of dividend on this type of financing which attracts the shareholders to invest. The rate which offers by companies recorded as financing cost and this cost deductible from total income for the calculation of net profit. The other source of financing is debt financing. In debt financing, companies approach to banks for funding or acquiring the business loans. The banks charge the interest rate on these loans which also considers as financing cost. Companies issue the bonds, commercial papers, and notes payable etc. in this type of financing. Both equity and debt financing have specific sum of cost which known as financing cost. This

cost altered in different modes and compel the firms for adoption of specific type of financing. Firms have to adopt optimum mix of these two types of financings which maximize their utility and reduce cost of financing as much as possible. This mix of financing compiles the total capital of firms in which firms choose the specific percentage of debt or equity.

The developed banking sector of a country accommodates business community with more cheap funds. It also facilitates the business operations with more efficient and transparent ways such as timely and ease transfer of funds. Banking sector acts as back bone of economic and financial development of any country. The development of banking sector often gauges with overall stability, size and percentage gross domestic product (GDP) growth rate etc. Countries with strong banking sector prosperity offer the lucrative financing plans to common borrowers which require the funds for financing their business operations. It also keeps the small and medium enterprises innovative and more confident about growth. The development of this sector enhanced the productivity of large industrial sector and results in enrichment of total export volume.

Firms often seek the convenient way of financing which is easily available. But sometimes it causes to more costly financing. Firms prefer more debt because it conveniently available due to personal relations of managers or some other cause and ignored the equity financing. But most of times banks charge high interest rate on loans and this thing become the reason of high financing cost. Companies have to make the proper decision regarding the capital structure. Companies have to decide that whether it's more economical to use internal financing or either external financing. Moreover, decision regarding to usage of specific percentage of debt or equity in total financing also crucial. There exists the trade-off between different types of financing. When companies use the high retained earnings for financing purposes, the reserves which maintain to meet the unfavorable consequences decrease and firms become more vulnerable and also face the more risk of bankruptcy. Debt financing increases the fix burden of interest rate and also increases the volatility of firms due to fix liability of interest. Major limitation of equity financing is the involvement of more shareholders or stock holders in decision making and company has also to meet the desires of stock holders in different business decisions.

The objective of this study is to check that whether the development of banking sector which often called as financial sector play any role in capital structure decision of firms. Capital structure uses as dependent variable and four ratios i.e. (1) debt/equity ratio (2) short term loan/total equity ratio (3) long term loan/total equity ratio (4) total debt/total asset ratio use for the measurement of capital structure. Development of banking sector takes as independent variable and measures with the five ratios i.e. (1) GDP growth rate (2) size of banking sector (3) domestic credit ratio (4) net interest margin ratio and (5) capital adequacy ratio of banking sector. Three control variables which are profitability (ROA), tangibility of total assets and size of firm (log of sale) also adhere with capital structure determination. Study recommends the financing policy for finance managers that while structuring the capital structure they should also consider the financial sector development status.

1.1 Problem Statement

In a specific country, firms may prefer more equity or more debt. The preference of firms depends upon different indicators which may adhere with financing decision of firms. Capital structure decision also associates with both banking market and equity market development. The development of each sector colloquially showers its impact on capital structure decision but companies often ignore the banking market. So, it was necessary to check out that

“Is there any relationship between financial sector development and capital structure decision of Pakistani firms”?

1.2 Research Objective

Banking sector is one of the major sector which plays important role in development of other sectors of economy. It extends the funds to run the wheel of whole economy. It may interfere in industrial sector of

economy and alters the different corporate decisions either positively or negatively. More narrow down our discussion of corporate level decision, one of the important decision is capital structure which exalts or vains the profitability of firms. So, the objective of this study is “To check the impact of banking sector development on capital structure decision of firms”

1.3 Research Questions

Study accumulated the following research questions which will be answered.

Does there any relationship between GDP growth rate of banking sector and capital structure decision of firms from non-financial sector?

How size of banking sector affects capital structure decision?

How capital structure decision of firms associated with domestic credit of bank?

Is there exists any relationship between net interest margin ratio and capital structure?

Does there any relationship between capital adequacy ratio of banking sector and capital structure of firm from non-financial sector?

1.4 Significance of Research

The study has theoretical, empirical and practical significance. Theoretically, this study not only limited to literature for the selection of variables but also excesses the “The World bank” and “The State bank” reports of development measurement. Empirically, this study has selected only those ratios which can best explain the development of banking sector and practically used by stakeholders when assessing the development status of banks. Moreover, this study is innovative in the way because selected ratios cover all the indicators of development such as financial stability (GDP growth rate, domestic credit), size (log of assets), efficiency (net interest margin) and liquidity (capital adequacy ratio) position etc. Practically, study enhances the thoughts of finance managers to consider the banking sector development while making the decision about capital structure.

2.Literature Review

The research on capital structure emerged after the study of Modigliani and Miller (1958) in which they urged the concept of cost of financing which may decreased or increased by specific percentage of debt and equity in total financing. Their study noted the capital structure as important business decision which may affects the profitability of firms. Murinde (2012) focused on transaction cost and argued that it adhered with financial development status of financial sector. He suggested that transaction cost decreased in developed financial market but increased in developing or underdeveloped financial market. Moreover, Chami et.al (2010) documented that due to asymmetric information in developing financial market, the cost of financing increased. This phenomenon occurred due to wrong selection of capital structure and some moral issues. They also suggested that banking sector offered sufficient sum of financing to firms when this department has developed status in a country. Faulkender (2006) noted that firms approached to more equity market for financing over debt market in case of backward financial sector. Frank (2009) has also proved same notion in his study. Both researchers conjectured that due to underdeveloped financial market, firms preferred more equity market because this market has competitive edge of cost benefit.

According to IMF (2017) country assessment report, Pakistan has developing financial sector. Islam (2007) noted that companies in underdeveloped or developing financial market becomes sensitive regarding to capital strcuture due to absence of favourable environment. Schmukler (2006) suggested in his study that cost of financing decreased due to development of financial sector because alternative sources of financing increase. It leads to competition in market and relative financing cost charged by the lending institutions decreased. In another study, Bokpin (2010) has asserted that cost reduction was associated with increment in number of banks and financial position stability because debt financing become convenient and it also has competitive interest rate due to larger availability of competitors in market. Sometimes , due to information asymmetry , the benifits associated with developed financial market my decreased because banks have no proper approach to firms. The asymmetric information

appendages its costs on both lenders and borrowers and they did not approach the true position of each other (González, 2014). Agca et.al (2013) have also presented in their study that transaction cost associated with borrowed funds decreased due to increased number of banks and banking sector reforms but at the same time it may leads to enrichment of financing cost due to improper handling of risk attached with it.

There exists different proxies which best explain the development of banking sector. These proxies have also been used in different studies. According to The World bank (2017) there exists two indicators to assess the financial sector development i.e. traditional and new. In traditional method, major heads for the measurement of banking sector development were size and intermediation. In new or modern method, development of financial sector measured with acces, efficiancy and stability. Frank et.al (2009) noted that some firm level variables such as size of firm, profitability, tangibility of assets and tax rate affect corporate leverage. They have argued that tangibilty of assets has positive relationship with more leverage. According to trade-off theory, a firm with more profitability will tends to more debt because of tax advantage on debt but Tsyplakov (2008) has proved negative relationship among leverage and profitability. Some other studies such as Arsov et.al (2016) have also examined the determinants of capital structure. Their study resulted that companies with more fixed assets preffered more debt. Wen (2002) has argued that corporate goverance affect the capital structure and Delcoure (2007) noted that transational economies also effect the capital structure. Ownship structure of companies such as state ownership or domestic ownership also determine the capital structure of companies (Chen, et.al 2014).

There were very few studies which seeks to check relationship between banking sector development and capital structure choices. According to Agarwal (2004) banking sector development envisioned its impacts on capital structure. He has used the GDP growth rate and some other ratios for the measurement of bnking sector development. Junior and Valle (2015) have analyzed the role of funding sources in determining the capital structure of Brazilian companies. They have considered three sectors i.e. financial institutions, capital market and source with discounted interest rate as funding sources and concluded that capital structure formation influenced with these funding sources. There exists many indicators which judge performance or development of banking sector such as net interest margin ratio, return on assets and return on equity (Khrawish, 2011). These ratios have also specifid by Gul et.al (2011) as the indicator of banking sector performance. Some specific ratios such as capital adequacy ratio measures the amount of capital which enabled the banks to face risks and shortage of funds. It depicts the internal stability of banks (Dang, 2011). More leading variables such as banks with high credit in emerging economies argued firms for external financing (Chami, 2010).

2.1 Research Gap

Mostly studies check the effect of banking sector development on capital structure in collection of number of countries. Some studies also check this effect on single country such as Fatima Oyebola (2014) on South African firms but study in Pakistan has not seen in literature. The literature on relationship between capital structure and profitability of firm is emerging such as Ramzan (2018) has checked the impact of capital structure on profitability of firms in Pakistan. Same studies have also found in the literature but they did not highlight the reverse relation of variables i.e. impact of banking sector development on capital structure of firms. So to fill this gap in literature, this study was conducted.

2.2 Hypotheses Development

H1: There exists the positive and significant relationship between banking sector development and total debt to equity ratio.

H2: Banking sector development has significant and positive relationship with short term debt to equity ratio.

H3: Banking sector development affects long term debt to equity ratio positively and significantly.

H4: There exists the positive and significant linkage between banking sector development and total debt to assets ratio.

2.3 Conceptual framework

Fig.1.representation of relationship among variables

3. Data and Methodology

3.1 Data and Sample Size

Data have been collecting from the published reports of The State Bank with the name of “Financial Statement Analysis for Non-financial Sector” and also for financial sector. Study consists of 6 years data ranging from 2010 to 2015. Research size incorporates top 50 non-financial firms and scheduled banks.

3.2 Selection of Variables

Table.1.Overview of variables

Variable name	Used as	Measurement	Reference
GDP growth rate	Independent variable	%(total assets/total GDP)	(Bank, 2017)
Size of banking sector	Independent variable	log of total assets	(Fatima et.al, 2014)
Interest margin ratio	Independent variable	Net interest income/ total assets	(Bank, 2017)
Domestic credit of banking sector	Independent variable	Total credit provides to other banks and institutions	(Khalil, 2017)
Capital adequacy ratio of banking sector	Independent variable	Total capital/total assets	(Ongore , 2013)

Profitability of non-financial sector	Control variables	ROA= EBIT/total assets	(Fatima et.al, 2014,; Ron, 2014)
Tangibility of assets of non-banking sector	Control variables	Total assets-intangible assets	(Ron, 2014)
Size of non-banking sector	Control variables	Log of sales	(Ron, 2014)
Capital structure	Dependent variable	Total debt/equity ratio Short term debt/equity ratio Long term debt/equity ratio Total debt/asset ratio	(Kristyana, 2017)

3.3 Explanation of Variables

3.3.1 Capital structure

Capital structure formulated with capital funds i.e. debt and equity that acquires by the companies from different sources. Companies equip itself either with debt financing or by equity financing. Capital structure may also consider as financing mix of debt and equity that companies use to finance its assets.

3.3.2 GDP Growth Rate

Percentage gross domestic product (GDP) growth rate of banking sector explains the growth rate of banking sector in comparison with GDP. It explains development of banking sector because the growth in total assets with benchmark of GDP gives the overall picture of development of this sector.

3.3.3 Size of Banking Sector

It apparently accepted that the size of any sector depicts development of this sector to some extent. There are different ways to measure the size of corporation such as total asset, total sales volume and number of employees etc. The size of banking sector measures with volume of total assets and natural Log was taken to convert the large nonlinear values into linear form.

3.3.4 Net interest Margin Ratio

Net interest margin ratio measures the efficiency of banks and depicts the earning capacity of banks through its core banking business. Banks advance the loans to borrowers and earn the interest on it. These funds come from the deposits made by account holders. High interest margin ratio represents the bank performance.

3.3.5 Capital Adequacy Ratio

Capital adequacy ratio measures the solvency of banks. It measures that how much a bank is solvent and able to fulfill its financial obligation by analyzing total assets with total capital. Capital adequacy ratio is banking specific ratio and shows that how much a bank is resilient against unseen consequences.

3.3.6 Domestic Credit

Domestic credit of banking sector depicts the lump sum amount which banks provide to other banks in the shape of loans or remittances balance. It also consists on amount of funds which banks extend to different non-banking firms in the form of loans. It shows the strength and financial stability of banks.

3.3.7 Tangibility of Total Assets

Tangibility of total assets determines the capital structure of firms. A firm with more tangible assets prefers the different capital structure than a firm with fewer tangible assets. It shows the vulnerability of firms and predicts that how much a firm is resilient against the tragedies

3.3.8 Profitability of Firms

Profitability of firms shows its effects on capital structure of firms. A firm which has more profits often prefers more debt because debt financing compensates the firms with more tax deduction than firms have to be paid on their profit. Profitability of firms measured with return on asset ratio and used as control variable.

3.3.9 Log of Sales

Log of sales depicts the total size of non-banking firms. Size of firms also determines the capital structure. Large firms have different financing mix as compared with small firm. As stated above, log was taken to convert the non-linear numbers into linear form. Log of sales used as control variable.

3.4 Econometrics Models

Econometrics models depict the nature of variables i.e. cross sectional, time series or panel and also show how many explanatory variables injected in specific regression model.

$$Y_{it} = \beta_1 + \beta_2 X_{1it} + \varepsilon_{it} \dots \dots \dots \text{eq. (1)}$$

$$DTE_{it} = \beta_0 + \beta_1 GGRB_{it} + \beta_2 CARB_{it} + \beta_3 NIMB_{it} + \beta_4 LOAB_{it} + \beta_5 LODCB_{it} + \beta_6 LOTTA_{it} + \beta_7 LOS_{it} + \beta_8 ROA_{it} + \varepsilon_{it} \dots \dots \dots \text{eq. (2)}$$

$$STE_{it} = \beta_0 + \beta_1 GGRB_{it} + \beta_2 CARB_{it} + \beta_3 NIMB_{it} + \beta_4 LOAB_{it} + \beta_5 LODCB_{it} + \beta_6 LOTTA_{it} + \beta_7 LOS_{it} + \beta_8 ROA_{it} + \varepsilon_{it} \dots \dots \dots \text{eq. (3)}$$

$$LTE_{it} = \beta_0 + \beta_1 GGRB_{it} + \beta_2 CARB_{it} + \beta_3 NIMB_{it} + \beta_4 LOAB_{it} + \beta_5 LODCB_{it} + \beta_6 LOTTA_{it} + \beta_7 LOS_{it} + \beta_8 ROA_{it} + \varepsilon_{it} \dots \dots \dots \text{eq. (4)}$$

$$DTA_{it} = \beta_0 + \beta_1 GGRB_{it} + \beta_2 CARB_{it} + \beta_3 NIMB_{it} + \beta_4 LOAB_{it} + \beta_5 LODCB_{it} + \beta_6 LOTTA_{it} + \beta_7 LOS_{it} + \beta_8 ROA_{it} + \varepsilon_{it} \dots \dots \dots \text{eq. (5)}$$

Where

DTE = debt to equity ratio

LTE = long term debt to equity ratio

GGRB = GDP growth rate of bank

ICRB = interest coverage ratio of bank

LODCB = log of domestic credit of bank

ROA = return on assets

STE = short term debt to equity ratio

DTA = debt to asset ratio

CARB = capital adequacy ratio of bank

LOAB = log of assets of bank

LOTTA = log of tangibility of total assets

LOS = log of sales

3.5 Results Discussion

The data has been run in the statistical software named EViews 7 and ordinary least square (OLS) model has applied. The basic assumptions of OLS model i.e. data normality, model linearity, no autocorrelation; no multicollinearity and Homoscedasticity have also met.

3.5.1 Descriptive Stats

Table.2.detail of descriptive stats

	LOTT A	LOS	ROA	DTE	DTA	LTE	STE	LODC B	GGR B	LOAB	CAR B	NIM B
Mean	10.832	10.75 2	0.10 9	0.72 6	0.22 9	0.44 5	0.28 0	10.276	1.523	11.23 2	0.093	0.03 5
Median	10.942	10.85 1	0.09 4	0.45 1	0.23 1	0.17 2	0.22 0	10.305	1.485	11.43 3	0.087	0.03 4
Max.	11.354	11.33 5	0.42 7	1.83 6	0.41 6	1.70 1	1.38 3	11.193	4.886	12.07 2	0.197	0.06 5
Min.	9.716	9.684	0.01 2	0.05 0	0.01 6	0.01 4	0.02 6	9.092	0.074	10.10 3	0.020	0.02 1
Std.dev	0.431	0.481	0.08 1	0.56 4	0.11 7	0.46 7	0.29 7	0.588	1.429	0.600	0.042	0.00 8
Obs.	36	36	36	36	36	36	36	36	36	36	36	36

The table.2 presents the descriptive stats i.e. mean median and standard deviation of variables. The mean value of LOTTA is 10.832 which depict that respondent firm's lie in the range of 10.832. The median value of LOTTA is 10.942 which show the most of firms are in the range of 10.942. The maximum and minimum values show the upper and lower limit of responses. The value of standard deviation is 0.431 which indicates the percentage of dispersion from mean value. The LOS has mean value of 10.752 shows that firms have average ten digit sale volume. The ROA has mean statics 0.109 that narrates that the respondent firms have less profitability on assets. The mean value of DTE is 0.726 which confirm that the companies have low debt than equity. The median value of DTE is 0.451 which is the proof that the most of firms have less than half debt as compared to equity in total capital structure. The DTA has mean number 0.229 which show that firms use very little amount of debt to finance its assets as compared to equity. Similarly the LTE is 0.445 which show the percentage of usage of long term debt as compared to equity. The mean values of STE, LODCB GGRB, LOAB and CARB are 0.280, 10.276, 1.523, 11.232 and 0.093 indicates the percentage of responses of firms for specific variables. The NIMB has mean value of 0.035 which indicates that the normally the banks have 3 percent interest margin. The median value 0.034 depicts that the most of banks in overall data have interest margin 3 percent. The maximum value for NIMB is 6 percent and minimum value is 2 percent show the both ends limits of responses of banks. The SD is 0.08 percent shows the percentage of deviation from mean. The statics of mean, median and standard deviation shows the results in much summarized form through which analysis become very easy.

3.5.2 Correlation

Table.3.correlation among variables

	LOTTA	LOS	ROA	DTE	DTA	LTE	STE	LODCB	GGRB	LOAB	CARB	NIMB
LOTTA	1.000											
LOS	0.876	1.000										
ROA	-0.524	-0.272	1.000									
DTE	0.419	0.514	-0.202	1.000								
DTA	0.180	0.258	-0.095	0.825	1.000							
LTE	0.446	0.468	-0.304	0.850	0.636	1.000						
STE	0.093	0.239	0.094	0.561	0.566	0.042	1.000					
LODCB	-0.286	-0.324	0.061	-0.173	-0.025	-0.180	-0.045	1.000				
GGRB	-0.400	-0.411	0.016	-0.168	-0.059	-0.196	-0.009	0.834	1.000			
LOAB	-0.309	-0.319	0.046	-0.291	-0.135	-0.302	-0.077	0.944	0.853	1.000		
CARB	-0.333	-0.247	0.291	-0.059	-0.055	-0.028	0.043	-0.465	-0.342	-0.408	1.000	
NIMB	-0.333	-0.255	0.286	0.156	0.042	0.066	0.191	0.041	0.114	-0.089	0.603	1.000

The statistical outcomes in table.6 show that LOTTA and LOS, ROA, DTE, DTA, LTE, STE, LODCB, GGRB, LOAB, CARB and NIMB have correlation values 0.876, -0.524, 0.419, 0.180, 0.446, 0.093, -0.286, -0.400, -0.309, -0.333, and -0.333 in sequence. These values show the degree of association with each other. High correlation is normally not good especially due to the problem of multicollinearity. The LOTTA has high correlation value 0.876 with LOS which is due to the reason that loans advances to customers are the sales of banks and it also becomes the assets in the form of account receivables. Most of the values are normally distributed (i.e. around the 50%) which shows the no problem of auto-correlation. The DTE and DTA have high correlation value of 0.825. It may be good because it indicates that the proxies which were used for the measurement of capital structure perfectly show the one variable i.e. capital structure. The high correlation values show that the same variables have some near relationship with others.

3.5.3 Cross section Fixed Effect Model

The data which was used in our analysis was collected from different sectors. Due to the diverse nature of data, problem of heterogeneity may arouse. So, to capture the problem of heterogeneity, the redundant fixed effect-likelihood ratio test in EViews was applied. To test this phenomenon, following hypothesis developed,

H0 = Random effect should be applied in cross-section.

H1 = Fixed effect should be applied in cross-section.

Table.4.results of cross-section fixed effect test

	Cross section fixed effect test					
	Cross section F			Cross-section Chi-square		
Model summary	Statistics	d.f	Prob.	Statistics	d.f	Prob.
Model 1	11.05	(1230)	0.000	86.21	12	0.000
Model 2	5.65	(1442)	0.000	66.78	14	0.000
Model 3	13.75	(1226)	0.000	93.76	12	0.000
Model 4	16.58	(1234)	0.000	105.87	12	0.000

The probability value of Cross section Chi-square which mentioned in table no.4 is less than 0.05 in all four models, so the null hypothesis is rejected and alternate hypothesis is accepted. These results favored the fixed effect over random effect in EViews.

3.5.4 Regression analysis

The following results obtained which show the regression among dependent and independent variables.

Table.5. regression among variables

	Model 1			Model 2			Model 3			Model 4		
D.Variable	DTE			STE			LTE			DTA		
	Coeff.	t-stat	Prob.	Coeff.	t-stat	Prob.	Coeff.	t-stat	Prob.	Coeff.	t-stat	Prob.
Constant	-0.009	-0.0024	0.99	0.63	0.27	0.78	-0.83	-0.19	0.84	1.51	1.39	0.17
CARB	-0.68	-0.26	0.79	0.65	0.40	0.68	-0.98	-35	0.72	-0.83	-1.18	0.24
NIMB	-8.43	-1.28	0.20				4.02	0.78	0.43	-2.02	-1.37	0.17
LOAB	-0.71	-1.91	0.06	0.06	0.28	0.77	-0.01	-0.02	0.97	-0.20	-2.11	0.04
GGRB	0.16	1.96	0.05				-0.01	0.20	0.83	0.06	3.16	0.00
LODCB	0.04	0.18	0.85	-0.01	-0.07	0.93	0.006	0.02	0.97	-0.10	-1.63	0.11
ROA	-2.74	-5.58	0.000	-0.85	-1.92	0.06	-2.62	-2.55	0.01	-0.64	-4.63	0.00
LOTTA	0.98	2.70	0.01	0.05	0.16	0.86	-0.32	0.61	0.54	0.30	3.08	0.00
LOS	-0.17	-0.71	0.47	-0.12	0.56	0.57	0.48	1.60	0.11	-0.09	-1.47	0.15
R-square	0.91			0.71			0.93			0.90		
Adj. R ²	0.86			0.57			0.88			0.84		
D.W stat	2.37			2.49			1.97			2.45		
Prob.(Stat)	0.0000			0.0000			0.00000			0.0000		

Explanation

The results of model 1 which shown in table no.5 in which debt to equity ratio used as dependent variable represents that the t-statistics of LOAB, GGRB, ROA and LOTTA have significant values. The LOAB has value of t-statistics -1.91 which presents that size of banking sector has significant but inverse relationship with debt to equity ratio. The reason behind this fact may be that either the banking sector has high volume but due to wrong policies or improper strategies, companies did not pay attention on borrowings from banks. The GGRB has value of t-statistics 1.96 which manifested the growth rate of banking sector has positive and significant relationship with debt to equity ratio. High growth rate of banking sectors attracts the borrowers for more debt in their capital structure. The ROA has value of t-statistics -5.58 which represent the profitability of non-banking sector has strong significant but negative relationship with debt to equity preference. When the companies earn more profitability then managers become overconfidence and prefer more debt over equity. The LOTTA has value of t-statistics 2.70 depicts the volatility of companies. The companies which have high tangible assets prefer more debt over equity. All other variables such as NIMB, CARB, LODCB and LOS have t-statistics values of -1.28,-0.26, 0.18,-0.71 relatively which show the insignificant relationship with debt to equity ratio. These ratios do not affect the debt to equity ratio. The adjusted- R square has value of 86 percent shows the high regression between dependent and independent variables. The value of Durban Watson is 2.37 which is less than benchmark value of 2.5 shows no auto-correlation among independents variables. The first alternate hypothesis (H1) is partially accepted.

In model 2, in which short term debt to equity ratio is dependent variable, the t-statistics values of all independent variables i.e. LOAB, CARB, LODCB, LOS and LOTTA represent that these variables have insignificant relationship with short term debt to equity ratio except ROA which has significant relationship. The LOAB, CARB, LODCB, LOS and LOTTA have t-statistics values of 0.28, 0.40, -0.07, 0.56 and 0.16 relatively which conjectured that these variables do not have any impact on short term debt to equity ratio. However, the profitability (ROA) of firms has significant t-statistics value of -1.92 and suggested that the firms which have more profit also prefer more short term debt over equity. The value of adjusted R-square is 57% which presents the regression between independent and dependent variables. The value of Durbin Watson is 2.49 shows the absence of auto-correlation. The probability value of F-stats shows that overall model is significant. On the basis of above results, it can augmented that alternate hypothesis H2 is fully rejected.

Similarly, in model three, all independent variables except ROA have insignificant relationship with long term debt to equity ratio. The independent variables CARB, NIMB, LOAB, GGRB, LODCB, LOTTA and LOS have t-stats values of -0.35, 0.78, -0.02, 0.20, 0.02, 0.61 and 1.60 relatively but ROA has t-stats value of -2.55. Companies which have more profitability prefer more long term debt. The value of adjusted R-square is 0.88 shows the high regression and value of Durbin Watson stats is 1.97 results that there exists no auto-correlation among variables. The results of variables suggested that the alternate hypothesis (H3) fully rejected. The statistical results of model 4 show that CARB, NIMB, LOAB and LOS have insignificant relationship but GGRB, LODCB, ROA, and LOTTA have significant values. The t-stats value of CARB, NIMB, LOAB and LOS are 1.39, -1.18, -1.37 and -1.47 relatively. The t-stats values of GGRB, LODCB, ROA and LOTTA are -2.11, -1.63, -4.63 and 3.08 relatively. Companies prefer more debt for financing its assets over equity when banking sector have high GDP growth rate, vast volume of domestic credit and also when companies have more profitability and tangible assets. The adjusted R-square is 84% which show the high regression and Durbin Watson stat is 2.45 which indicate the no auto-correlation.

4. Conclusion

Study has magnified the conjecture about the development of banking sector on capital structure of non-financial sector companies of Pakistan. More generally, this study addresses the effect of those ratios which best represents the development of banking sector and also used by The World bank to gauge the development status. According to our best knowledge, this study may mark as first study in Pakistan which has empirically checked this effect. The novelty of study can also be judged by analyzing that how financial sector have some effect on the decisions of non-financial sector firms. The statistical results of this study may help out to finance managers to guess that which factors of banking sector may change the capital structure settings. The results of study also answered the research questions and best meet with research objective. If we summarized the results then it can be judged that the short term debt preferences of companies in Pakistan do not malleable by banking sector development and similar trend with long term debt preference. However, debt to equity ratio and debt to assets ratio have significant relationship with development status to some extent. On the basis of results, it concluded that the first (H1) and fourth (H4) alternate hypotheses partially accepted and second (H2) and third (H3) alternate hypotheses fully rejected.

4.1 Limitations and Future Firection

The limitation of this study is that for the purpose of being making the analysis, only six years data was used. But this study has considered the overall non-financial sector of Pakistan. Future research can be designed on different sectors separately. Each sector may have different relation with banking sector development. Moreover, more ratios can be added in analysis which depicts the banking sector development. These ratios are private credit to GDP and private credit to total credit etc.

Reference

- Agarwal, S. &. (2004). Financial markets and the financing choice of firms: evidence from developing countries. *Global Finance Journal* , 15 (1), 57-70.
- Agca, S. D. (2013). Banking sector reforms and corporate leverage in emerging markets. . *Emerging Markets Review* , 17 (0), 125-149.
- Arsov Sasho, N. A. (2016). Determinants of capital structure: An empirical study of companies from selected post-transition economies. *Zb rad Ekon fak Rij* , 34 (1), 119-146.
- Bank, T. W. (2017). *Financial Sector Development Indicators Comprehensive assessment through enhanced information capacity*. Washington, DC: The World Bank Financial Sector Operations and Policy.
- Bokpin, G. A. (2010). Financial market development and corporate financing: evidence from emerging market economies. *Journal of Economic Studies* , 37 (1), 96-116.

- Chami, R. F. (2010). A framework for financial market development. *Journal of Economic Policy Reform* , 13 (2), 107–135.
- Chen, J. C. (2014). What determine firms' capital structure in China? *Managerial Finance* , 40 (10), 1024-1039.
- Dang, U. (2011). Dang, Uyen. The CAMEL Rating System in Banking Supervision: a Case Study of Arcada .
- Delcours, N. (2007). The determinants of capital structure in transitional economies. *International Review of Economics & Finance* , 16 (3), 400–415.
- Fatima Oyebola, M. E. (2014). Banking Sector Development and Corporate Leverage: Empirical Evidence from South African Firms. *International Journal of Economics and Finance* , 6 (8), 278-288.
- Faulkender, M. &. (2006). Does the source of capital affect capital structure? *The Review of Financial Studies* , 19 (1), 45-79.
- Frank, M. Z. (2009). Capital structure decisions: which factors are reliably important? *Financial Management* , 38 (1), 1-37.
- González, V. M. (2014). Banking liberalization and firms' debt structure: international evidence. *International Review of Economics & Finance* , 29, 466–482.
- Gul, S. F. (2011). Factors Affecting Bank Profitability in Pakistan. *The Romanian Economic Journal* , 2 (3), 6-9.
- IMF. (2017). IMF country report-Pakistan selected issues. Washington, D.C: international monetary fund-publication services.
- Islam, S. S. (2007). Financial market development and the importance of internal cash: evidence from international data. *Journal of Banking & Finance* , 31 (3), 641–658.
- Junior Tarantin Wilson, V. d. (2015). Capital structure: the role of the funding sources on which Brazilian listed companies are based. *Revista Contabilidade & Finance* .
- Khrawish, H. (2011). Determinants of Commercial Banks Performance: Evidence from Jordan. *International Research Journal of Finance and Economics* , 5 (5), 19-45.
- Kristyana Dananti, C. P. (2017). The Best Indicator of Capital Structure to Predict Firm's Performance. *Review of Integrative Business and Economics Research* , 6 (4), 317-326.
- Mhadhbi Khalil, T. C. (2017). Banking sector development and economic growth developing countries: A bootstrap panel Granger causality analysis . hal archives ouvertes .
- Modigliani Franco, M. M. (1958). THE COST OF CAPITAL, CORPORATION FINANCE AND THE THEORY OF INVESTMENT. *the American economic Review* , 48 (3), 261-297.
- Murinde, V. (2012). Financial development and economic growth: Global and African evidence. *Journal of African Economies* , 21, 10-56.
- Ongore Okoth Vincent, K. B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Financial Issues* , 3 (1), 237-252.
- Ramzan, M. M. (2018). Analysis of the Capital Structure and Banks Performance: Evidence from Pakistan. *Journal of Business & Financial Affairs* , 7 (2), 1-5.
- Ron Christian Antonczyk, A. J. (2014). Overconfidence and optimism : the effect of national culture on capital structure. *Research in international business and finance* , 31, 132-151.
- Schmukler, S. L. (2006). Financial globalization and debt maturity in emerging economies. *Journal of Development Economics* , 79 (1), 183–207.
- Tsyplakov, S. (2008). Investment frictions and leverage dynamics. *Journal of Financial Economics* , 89 (3), 423-444.
- Wen, Y. R. (2002). Corporate Governance and Capital Structure Decisions of the Chinese Listed Firms. *Corporate Governance: An International Review* , 10 (2), 75–83.