Impact of Capital Structure on Profitability of the Banking Industry in India: An Empirical Study

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ABSTRACT

A lot is dependent on an appropriate capital structure of a business entity such that the interest of the shareholders also gets affected on account of its capital structure. The financial performance as well as the profitability of any firm or industry is very much dependent on the suitable mixture of the entity's capital structure. The significance of appropriate capital structure lies in the mixture of both adequate equity and debt fund which also justifies the profitability of a Banking Sector. Over the years, the study on capital structure and its impact on profitability has been an important area of study which have urged the researchers to conduct the study which also has got some socio economic significance in the current scenario. Looking at the importance of the research work, the researchers made an attempt to study the impact of capital structure on banking industry of our economy. Correlation and then regression analysis was done by the researcher to establish an empirical relationship between the dependent and independent variables considered for the study. At first correlation was conducted to find the association between the dependent and independent variables and based on that regression analysis was done to test the hypothesis of the study such that to establish an empirical relationship between capital structure and profitability. On the basis of the findings of the current research study, suitable and logical conclusion has been given by the researchers, and also along with that the scope for further research in the concerned area by the future researchers has also been provided such that it can be implied and justified effectively in future by a business entity and also for the economy as whole.

Keywords: Banking Sector; Capital Structure; Correlation; Profitability; Regression.

JEL Classification: C12, C32, C88, G32, L25, Y10

INTRODUCTION

Capital is the nerve center and life blood of every business entity and it is very essential for the smooth running of any business. Financial performance of an industry is reflected in maximizing return on assets, profit maximization and also maximizing shareholder return which is completely based on the efficiency and performance of the industry. Financial Performance of any industry is the blue print of the financial affairs of a business entity and it shows how a company has performed under a competitive business environment. The profitability and financial success of every firm depends mainly on its capital structure and capital structure is an important decision to make from the viewpoint of a business entity to fix the mixture of both equity and debt capital for a company. Financing decision is one of the most crucial areas in financial management to increase the wealth of shareholders. Firms can use either debt or equity capital to finance their assets and the decisions regarding financing are considered to be one of the most crucial areas for the finance managers while gathering the impact of capital structure on profitability and financial performance of the companies. Capital structure for an industry is closely linked with its corporate financial performance and therefore it is the most significant discipline for the operation of a company. In the world of corporate finance, the capital structure of a company is the structure or composition of its liabilities and it also influences the behavior of any industry as well as its performance results and along with that it also affects its value and therefore, the theory of capital structure and its impact on a company's profitability has been a serious issue. A combination of good capital structure of a firm leads to high earnings and stable profit to the shareholders and the choice of using equity and debt in a firm's capital structure is a crucial financial decision to make which influences both the risk and return of the shareholders.

In todays' generation of cutthroat competition, appropriate decision making has always been an issue and it is one of the toughest tasks such that the fate of a industry lies in it. The banking sector is one of the most crucial financial institutions in a developing country like India and therefore a lot is dependent on the desirable performance of this sector. There are also various other financial institutions in our economy like non banking financial companies to self help groups and joint liability groups who are giving neck to neck competition to the nationwide banks but the banking sector being the apex institution of our country needs to perform well for the better benefit of our economy at large. The banking industry in our country is mainly constituted of both public and private sector

banks and the size of the banks may vary based on the volume of the banks and its number of branches or the different kind of models used by a particular bank to provide adequate services to its customers and therefore the profitability measures of the industry will be an absolute measure. The performance and profitability of a bank is very much dependent on an appropriate portion of equity and debt fund in capital structure. The decisions regarding choosing appropriate equity and debt fund is crucial such that an inappropriate capital structure decisions can lead to unnecessary increase of cost of capital for an industry, and therefore it is crucial to ascertain the relationship between capital structure and profitability of a banking industry to understand the relevance of capital structure decisions. Thus, it is an important area of interest for worldwide researchers and it is the duty of the social science researchers to study and understand the relationship between capital structure and profitability of banking industry in the current scenario.

REVIEW OF LITERATURE

The following literatures are reviewed in the concerned area by the researchers to find out the research gap of the study:

Gupta (2015) examined the relationship between capital structure and profitability of foreign promoter's holding companies in India and the researcher have considered companies which have more than 75% promoters holding. Secondary sources of data are considered here and the researcher have done descriptive statistics, correlation analysis and multiple regression analysis and it was found that there exists a statistically significant relationship between capital structure and profitability of the companies. The researcher also elaborated that that there is a significant but negative relationship between Debt to Equity ratio, Total Debt to Total Asset ratio and profitability of firms which are measured by ROA, EPS and ROE.

Movalia (2015) studied the impact of capital structure on profitability of tyre industries in India which has been listed under Bombay Stock Exchange and National Stock Exchange. The researcher used Durbin-Watson Statistics for to find out the relationship set in the hypothesis and the results showed up a significant relation between capital structure, especially debt equity ratio and profitability of tyre industries. The researcher further said that few tyre companies like MRF, Dunlop India, Apollo Tyres, and Modi Rubber showed

relationship such that an ideal debt equity ratio helps to increase the performance of a company.

Singh and Singh (2016) investigated to find the impact of capital structure on the profitability of firm's with the help of selected cement companies in India. The researchers carried out the study based on secondary data and they used correlation coefficient to generate a relationship between the variables and the concerned research study found that there is a significant but negative relationship between debt and profitability and thus it can be said that the companies with higher proportion of debt than equity tend to have low profitability with bad performance.

Taqi, Ajmal and Pervez (2016) examined the nature of capital structure and its impact on firm's performance of eight selected trading companies listed in Bombay Stock Exchange. The researchers used multiple regression analysis to analyze the data such that to establish a relationship between capital structure and its financial performance, and thus the results of the study reveals that the capital structure of the firm's influences its financial performance. Moreover, it was also found out that equity and long term debt have a positive and significant effect, but the short term debt has a negative impact on financial performance of the form. Therefore, the researchers concluded that equity and long term debt financing improves financial performance of a firm.

Jain, Bhargava and Bhargava (2017) assessed the relationship between capital structure and profitability of manufacturing companies listed at National Stock Exchange in India and for that the researchers used fixed effect panel regression model to establish the relationship between the variables. The researchers found out that there is a significant and positive relation between short term debts to total capital employed and also return on assets and also for total debt to total capital employed and return on assets. The researchers further elaborated that the relationship between long term debt and return on assets had a positive but insignificant association.

Das and Swain (2018) studied to find out the determinants of capital structure and its effect on the financial performance of manufacturing companies. The researchers have considered regression analysis based on secondary data to study the relationship and affect of capital structure on profitability of fifty top manufacturing companies for the study and it was found that there is a significant relationship between the capital structure and profitability of the companies and

also the capital structure has a significant impact on financial performance of the selected companies.

RESEARCH GAP

On the basis of the above extensive review of literature, the researcher have found that there is lack of definite research work undertaken yet for gaining an in depth knowledge regarding how the capital structure of both public and private banks are impacting their profitability in a general way such that any relationship between profitability and capital structure is there or not. Considering this as a major research gap which have a significant socioeconomic implications for the economy, the researchers choose to fulfill the research gap through various variables used in the study which will bridge the gap through the below well defined research objectives and its raised research questions, by conducting an analytical, explorative and empirical research study.

OBJECTIVES

The following research objectives has been identified by the researchers based on the research gap found out for the study'

1. To assess the impact of capital structure on profitability of the banking sector in India.
2. To study the overview of the banking industry in the current scenario in our economy.
3. To know the relationship between capital structure on profitability of different public and private sector banks in India.

RESEARCH QUESTIONS

Based on the research objectives of the study, the following research questions have been raised by the researchers:

1. Does there is any impact of capital structure on profitability of the banking sector in our country?
2. How the banking industry is evolving in the current scenario in our economy?
3. Does there is relationship between capital structure and profitability of different public and private sector banks in India?

RESEARCH METHODOLOGY

Database and methodology is a very important part of the study which describes how the study has been conducted. It is the overall procedure and technique that has been used to carry out the research study. The methodology part here in the study consists of period of the study, variables used and the samples that are selected in the research work, formulated research hypothesis and the various statistical tools and tests conducted that are used to fulfill the research work.

Period of the Study: The study is conducted over a period of last five financial years ranging from the year 2015-16 to 2019-20which is empirical, explorative and analytical in nature. The study period considered by the researchers is based on the rationale that the data for ten financial years are thought to be sufficient enough to draw inference there from by analyzing the various capital structure and profitability parameters of the banking sector such that a relationship between the variables can be established and its conclusion can be drawn from it.

Variables used and Samples Selected: To analyze the impact of capital structure on profitability of the banking industry, secondary sources of data has been used which is mainly collected from the website of money control. Here, top ten public sector banks and top ten private sector banks has been selected based on money control and several variables were used to assess the impact of capital structure on profitability of the banking sector. Here, the variables selected for the study are Net Profit Margin, Return on Capital Employed, Return on Net Worth/ Equity, which are the profitability part of the sector; and Debt to total market capitalization ratio and Total debt to equity ratio are considered being the capital structure portion of the banking industry; whose data has been collected from its respective annual reports. For the explanation part of the study; various journals, articles, published information, news reports and research bulletins has been studied to fulfill the above mentioned objectives of the study.

Research Hypothesis: On the basis of the objectives and the research questions of the study, the following testable research hypothesis has been formulated by the researcher:

- H_{01}: There is no significant impact of capital structure on profitability of the banking sector in India for the period of the study.
- H_{02}: There is no significant impact of Debt to total market capitalization ratio on Net Profit Margin for the period of the study.

- H_{03}: There is no significant impact of Total debt to equity ratio on Net Profit Margin for the period of the study.
- H_{04}: There is no significant impact of Debt to total market capitalization ratio on Return on Net Worth/ Equity for the period of the study.
- H_{05}: There is no significant impact of Total debt to equity ratio on Return on Net Worth/ Equity for the period of the study.
- H_{06}: There is no significant impact of Debt to total market capitalization ratio on Return on Capital Employed for the period of the study.
- H_{07}: There is no significant impact of Total debt to equity ratio on Return on Capital Employed for the period of the study.

Statistical Tools and Tests used: For the purpose of the study, at first Pearson Correlation test was conducted and to further examine the impact of independent variable on the dependent variable, multiple regression analysis was conducted. The dependent variables considered here being the profitability ratios of the industry and the independent variable represents the capital structure ratios of the sector. The respective dependent and explanatory variables which are considered here are mentioned above that is used to interpret the data such that to know the relationship between capital structure on profitability of different public and private sector banks and to further assess the impact of capital structure on profitability of the banking sector. SPSS software has been used to conduct the research work such that the collected data can be clearly and conceptually presented, and then analyzed. And thus, finally the data has been clearly and conceptually analyzed to ascertain how the capital structure of the banking sector is affecting its profitability, and based on the findings of the study, logical conclusion was drawn there from by the researchers.

DATA ANALYSIS AND FINDINGS

To fulfill the objectives of the study based on the well narrated research methodology and to test the developed research hypothesis based on the research questions asked, the researcher have gone through the following procedure to establish a empirical relationship between the dependent and independent variables used here in the study:

Table 1: Pearson Correlation

		Net Profit Margin	Debt to Market Capitalization	Debt to Equity
Net Profit Margin	Pearson Correlation	1	.163	-.078
	Sig. (2-tailed)		.103	.443
	N		100	100
Debt to Market Capitalization	Pearson Correlation		1	-.173
	Sig. (2-tailed)			.083
	N			100
Debt to Equity	Pearson Correlation			1
	Sig. (2-tailed)			
	N			100

Source: Author's computation using SPSS

From the above Pearson correlation table, it can be clearly depicted that the correlation between dependent variable Net Profit Margin along with its explanatory variable, Debt to Market Capitalization ratio is 0.163 which shows a positive but low correlation between them indicating a low association between the dependent and the independent variable, which is not significant at5 % level of significance. The correlation between Net Profit Margin with Debt to Equity ratio is -0.078 which shows a high and negative correlation between the variables which is also not significant at 5 % level of significance.

After finding the Pearson's correlation, which has a got a no significant association between the dependent variable and its independent variables, multiple regression analysis was done by the researcher to establish an empirical relationship between the dependent variable and its independent variables and hence the study was examined through the following multiple regression model:

$Y = \beta 0 + \beta 1X1 + \beta 1X2 + \varepsilon$

Where, Y = Net Profit Margin of Public and Private Banks,

X1 = Debt to Market Capitalization ratio of Public and Private Banks,

X2 = Debt to Equity ratio of Public and Private Banks,

β0 is the constant term and the slope of the regression which measures the amount of change in Y associated with an unit change in β; and

ε is the Error term.

Table 2: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.078	.06	-.004	290.85765	2.150

a Predictors: (Constant), Debt to Market Capitalization, Debt to Equity

b Dependent Variable: Net Profit Margin

Source: Author's computation using SPSS

Based on the above Table 2 of regression model summary, it can be observed that the value of R is 0.078 which is the correlation coefficient between the variables that is significant both at 5 % and 1% level of significance and indicates a significant and linear association between the dependent and the independent variables. The value of R square is 0.006, indicating that more than 6 % of the variation in the dependent variable Net Profit Margin is explained by the independent variables. The adjusted R square value of -0.004 is found to be low in the model. The Durbin Watson value herein the table is 2.150, which depicts that there is no first order autocorrelation present in the model and it is free from errors.

Table 3: ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig.
Regression	50099.101	2	50099.101	.592	.003
Residual	8290620.771	97	84598.171		
Total	8340719.872	99			

a Predictors: (Constant), Debt to Market Capitalization, Debt to Equity

b Dependent Variable: Net Profit Margin

Source: Author's computation using SPSS

From the above ANOVA Table, we can observe that the value of F is 0.592 which measure the ratio between the mean square of regression and the error term, which is significant both at 5% and 1% level of significance. Table 3 depicts the overall fit of the model and here the value of p is 0.000 which is significant and shows that the model is a good predictor and a reliable one.

Table 4: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-2.882	74.104		-.039	.969		
Debt to Market Capitalization	-.012	.004	-.046	-4.32	.060	.173	5.822
Debt to Equity	-89.489	157.162	-.078	-.770	.443	.399	2.514

a Dependent Variable: Net Profit Margin

Source: Author's computation using SPSS

From the above Table 4 of regression coefficients it depicts the estimated values of the coefficients including the intercept term along with their p values. Here, we can find that the constant and the coefficient of the independent variables are not

significant at 5 % level of significance. The table also shows that the unstandardized beta value of Debt to Market Capitalization ratio is -0.012 and for other explanatory variable Debt to Equity ratio, its unstandardized beta value is -.89.489, having a negative impact on the Net Profit Margin of the banking sector. The coefficients are also free from multicollinearity which is depicted by the value of VIF and Tolerance factor. The Regression equation obtained from the above table is as follows:

$Y = -2.882 – 0.012\ X1 – 89.489\ X2 + \varepsilon$

Table 5: Pearson Correlation

		Return on Equity	Debt to Market Capitalization	Debt to Equity
Return on Equity	Pearson Correlation	1	.193	-.082
	Sig. (2-tailed)		.056	.418
	N		100	100
Debt to Market Capitalization	Pearson Correlation		1	.028
	Sig. (2-tailed)			.074
	N			100
Debt to Equity	Pearson Correlation			1
	Sig. (2-tailed)			
	N			100

Source: Author's computation using SPSS

Table 5 correlation matrix shows that the correlation between dependent variable Return on Equity and its independent variable, Debt to Market Capitalization ratio is 0.193 which has a positive and low correlation between the variables indicating a low association between the dependent and the independent variable, that which is not significant at 5 % level of significance. The correlation between Return on Equity with Debt to Equity ratio is -0.082 which is also not significant at 5 % level of significance and has a high and negative correlation between the variables ROE and Debt to Market Capitalization ratio.

After finding the Pearson's correlation, multiple regression analysis was applied by the researcher to establish an empirical relationship between the dependent variable along with its independent variables and the following multiple regression model was examined through the research study:

$Y = \beta 0 + \beta 1X1 + \beta 1X2 + \varepsilon$

Where, Y = Return on Equity of Public and Private Banks,

X1 = Debt to Market Capitalization ratio of Public and Private Banks,

X2 = Debt to Equity ratio of Public and Private Banks,

β0 is the constant term and the slope of the regression which measures the amount of change in Y associated with an unit change in β; and

ε is the Error term.

Table 6: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.082	.07	-.003	19.60426	2.215

a Predictors: (Constant), Debt to Market Capitalization, Debt to Equity

b Dependent Variable: Return on Equity

Source: Author's computation using SPSS

It can be seen from the above Table 6 that the value of R which is the correlation coefficient between the dependent and independent variables is significant at 5 % level of significance at 0.007 indicating a strong and significant linear association between the variables. The value of R square is 0.07 elaborates that more than 7 % of the variation in the dependent variable is explained by its independent variables. The adjusted R square value is given at -0.003 and the value of Durbin Watson is at 2.215, which depicts that there is no autocorrelation present in the model as a rule of thumb and it is free from any errors.

Table 7: ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig.
Regression	254.571	2	254.571	.662	.018
Residual	37664.055	97	384.327		
Total	37918.626	99			

a Predictors: (Constant), Debt to Market Capitalization, Debt to Equity

b Dependent Variable: Return on Equity

Source: Author's computation using SPSS

The value of F measuring the ratio between the mean square of regression and residual or the error term is 0.662 as per Table 7, which is significant at 5% level of significance. The value of p here is 0.018 which depicts the overall fit of the model and it is significant here and thereby it shows that there is a reliable one and it is a good predictor.

Table 8: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.463	4.995		.693	.490		
Debt to Market Capitalization	.671	.167	.679	1.232	.187	.293	3.439
Debt to Equity	-63.477	77.995	-.082	-.814	.418	.171	5.814

a Dependent Variable: Return on Equity

Source: Author's computation using SPSS

The regression coefficients showed above in Table 8shows the estimated values of the coefficients along with the intercept term with their p values. Accounting to the table, it can be seen that the constant and the coefficient of the independent variables are not significant at 5 % level of significance. The table also elaborates that the unstandardized beta value of Debt to Market Capitalization ratio is 0.671 and for other independent variable Debt to Equity ratio, its unstandardized beta value is -63.477, having a mixed impact on the Return on Equity of private sector banks. The value of VIF and Tolerance level shows that the regression coefficients of the model are also free from multicollinearity. The Regression equation developed from the above table is as follows:

$Y = 3.463 + 0.671\ X1 - 63.477\ X2 + \varepsilon$

Table 9: Pearson Correlation

		Return on Capital Employed	Debt to Market Capitalization	Debt to Equity
Return on Capital Employed	Pearson Correlation	1	.463	-.153
	Sig. (2-tailed)		.001	.128
	N		100	100
Debt to Market Capitalization	Pearson Correlation		1	.213
	Sig. (2-tailed)			.000
	N			100
Debt to Equity	Pearson Correlation			1
	Sig. (2-tailed)			
	N			100

Source: Author's computation using SPSS

From the above Pearson correlation matrix Table 9, it can be seen that the correlation between dependent variable Return on Capital Employed along with its independent variable, Debt to Market Capitalization ratio is 0.463 which shows a positive and moderate correlation between them indicating a moderate association between the dependent and the independent variable, which is not significant at both 5 % and 1% level of significance. The correlation between Return on Capital Employed with Debt to Equity ratio is -0.153 which exhibits a low and negative correlation between the dependent and its explanatory variable which is not significant at 5 % level of significance.

After finding the Pearson's correlation matrix, which has a got a significant association between the dependent variable and its independent variables, multiple regression analysis was done by the researcher to establish an empirical relationship between the dependent variable and its independent variables such that the study has been examined through the following multiple regression model:

$Y = \beta0 + \beta1X1 + \beta1X2 + \varepsilon$

Where, Y = Return on Capital Employed of Public and Private Banks,

X1 = Debt to Market Capitalization ratio of Public and Private Banks,

X2 = Debt to Equity ratio Public and Private Banks,

β0 is the constant term and the slope of the regression which measures the amount of change in Y associated with an unit change in β; and

ε is the Error term.

Table 10: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.153	.023	.013	11.64102	1.874

a Predictors: (Constant), Debt to Market Capitalization, Debt to Equity

b Dependent Variable: Return on Capital Employed

Source: Author's computation using SPSS

The value of R that can be depicted from the above Table 10 of the regression model summary is 0.153, which is the correlation coefficient between Return on Capital Employed and its independent variables, that is not significant at 5 % level of significance and indicates a weak and significant but non linear association between the dependent and the independent variables. The value of R square here is 0.023, indicating that more than 23 % of the variation in the dependent variable is explained by the independent variables. The adjusted R square value of 0.013 is also found here to be low in the model. The Durbin Watson value at 1.874 also indicates that the model is free from autocorrelation in the first order.

Table 11: ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig.
Regression	318.901	2	318.901	2.353	.128
Residual	13280.313	97	135.513		
Total	13599.214	99			

a Predictors: (Constant), Debt to Market Capitalization, Debt to Equity

b Dependent Variable: Return on Capital Employed

Source: Author's computation using SPSS

The value of F seen from the above Table 11 is 2.353, which measures the ratio between the mean square of regression and it's residual i.e. the error term, which is not significant at 5% level of significance. The ANOVA Table also depicts the

overall fit of the model and here the value of p is 0.128 which is not significant and shows that the overall fit of the model is not so good.

Table 12: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	7.478	2.966		2.521	.013		
Debt to Market Capitalization	.046	.011	.668	3.715	.001	.173	5.815
Debt to Equity	-71.046	46.313	-.153	-1.534	.128	.397	2.512

a Dependent Variable: Return on Capital Employed

Source: Author's computation using SPSS

Table 12 above shows the regression coefficients with the estimated values of the coefficients along with the intercept term with its p values and accordingly, it can be depicted that the constant and the coefficient of the independent variables are significant at 5 % level of significance. The table also shows that the unstandardized beta value of Debt to Market Capitalization ratio is 0.046 and for the other independent variable Debt to Equity ratio, its unstandardized beta value is -71.046, having both a significant and insignificant impact on the Return on Equity of the banking sector. The VIF and Tolerance level values in the model depicts that the regression coefficients are free from multicollinearity. Therefore, the regression equation established from the above table is as follows:

$Y = 7.478 + 0.046\ X1 - 71.046\ X2 + \varepsilon$

DISCUSSION AND CONCLUSION

On the basis of the above data analysis and findings of the study, it is evident that there were both significant and insignificant results which arise to test the developed hypothesis of the study such that an empirical relationship between capital structure and profitability of the banking sector can be established which is also given below as follows:

- H_{01} is rejected at 5% level of significance which shows that there is a significant impact of capital structure on profitability of the banking sector in India for the period of the study which is evident from Table 3 and Table 7 of the study.

- H_{02} is accepted at 5% level of significance which concludes that there is no significant impact of Debt to total market capitalization ratio on Net Profit Margin for the period of the study as per given Table 4.
- H_{03} is accepted at 5% level of significance which shows that there is no significant impact of Total debt to equity ratio on Net Profit Margin for the period of the study as per given Table 4 of the study.
- H_{04} is accepted at 5% level of significance which concludes that there is no significant impact of Debt to total market capitalization ratio on Return on Net Worth/ Equity for the period of the study as per given Table 8 of the study.
- H_{05} is accepted at 5% level of significance which shows that there is no significant impact of Total debt to equity ratio on Return on Net Worth/ Equity for the period of the study as per given Table 8.
- H_{06} is rejected at both 5% and 1% level of significance which conclude that there is a significant impact of Debt to total market capitalization ratio on Return on Capital Employed for the period of the study as per Table 12 of the study.
- H_{07} is accepted at both at 5% level of significance which shows that there is no significant impact of Total debt to equity ratio on Return on Capital Employed for the period of the study which can be seen from Table 12 of the study.

Accordingly, it can be said that that the Debt to total market capitalization ratio and Total debt to equity ratio have a significant and definite impact on the profitability of the banking industry jointly but on an individual basis it is clearly evident that there is a mixed relationship between the variables of capital structure and the profitability of the banking sector. The impact of Debt to total market capitalization ratio on the dependent variables have a mixed result as per the period of study but the impact of Total debt to equity ratio do have an insignificant impact to all the dependent variables of the study. But the regression models developed in the study are reliable and good predictors such that there will be considerable socio economic development by improving the apex and core financial institution of our country. The adequate mixture of equity and debt capital justifies the profitability of an industry and therefore the capital structure should be appropriately utilized such that the performance and profitability of a banking industry can be improved prior to its competitors. Along with it the

policy makers and also the Reserve Bank of India should take necessary steps and frameworks from time to time such the situation of the banking industry can be improved for the development of the overall financial situation of our country.

LIMITATIONS OF THE STUDY AND FUTURE RESEARCH SCOPE

First of all the future researchers can conduct research work based on collecting primary data which may give them better and accurate results since the whole study has been conducted by the researchers based on only secondary sources of available information and data. The future researchers can also take more number of banks into consideration with their variables of capital structure and profitability such that more definite results can be ascertained. The current study is based on few years of data and therefore the future researchers can consider more years of sample period to get better and accurate results. Geographical area specific or state specific sample can also be considered by the future researchers to find out exactly how particular bank's profitability in that state or area is getting affected on account of its capital structure. Also suitable and appropriate sophisticated statistical tools along with other econometrics models can be used in future research studies such that to gather more in depth knowledge regarding the relationship between capital structure and its profitability in a banking industry. Cross country analysis of the concerned research work can also be conducted to get a different kind of picture of the proposed research study such that it can be compared among different countries across the globe.

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