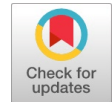


Major Determinants of Profitability on Banking Industry (An Empirical Research)

K S L N S Subrahmanyam, A V N Murthy



Abstract: Banking industry is a backbone of any country including developed, developing and under developed countries. The prosperity of a country depends upon all important sectors that are responsible for promoting trade, industry, agriculture and commerce. In other words it can be said that the banking industry's a key player of and country. Today, the meaning of banking has gone beyond the basic function of receiving deposits and lending advances. Banks promote good Indian as well as foreign trade. The basic objective of this research is to assess impact of important determinant on the financial performance and profitability. Since, the term research is limit less the focus is being reduced to a few selected private sector banks to know that they are playing a crucial role in determining important factors on the financial performance and profitability of the said banks during the period of 2014 to 2017. The period was selected because the new Government during the period took important decisions on demonetization and goods and services tax Act.

Keywords : Profitability, Nationalized banks, Correlation, Multiple Regression, Paired T test.

I. INTRODUCTION

India is a country of vedic culture since the early centuries. It is a country of rich heritage, values, mines and minerals, trade and commerce from the good olden days. Today, in the current century India is one of the finest growing economies in the world. For the opportunity of foreign direct investment, start-ups, export import trade. During the last two decades different Governments in the country have been focusing on the economic front, industry front, trade front and agriculture front. The banking industry has seen continuous metamorphosis in the various levels of structural reforms. The banking industry in India started its journey in the form of helping trade within the country and between the countries. Some of the major issues like incorporation of banking regulation Act, 1949, Nationalization, liberalization, Privatization and Globalization. There was time when banking industry were the level playing field of public sector banks only but the Government failed that only public sector banks alone cannot meet the economic challenges and expected growth rates. So the field was open for private sector banks to take part in the nation building and support the issues like growth rate, control over interest and inflation rates and more support to the trade, industry, business,

agriculture, personal finances and day to day banking operations.

II. BRIEF PROFILE OF SELECT PRIVATE BANKS

HDFC BANK

The Housing Development Finance Corporation Limited (HDFC) was amongst the first to receive approval from the Reserve Bank of India (RBI) to do banking business in India. The bank was incorporated in August 1994 in the name of 'HDFC Bank Limited', with its registered office in Mumbai.

Kotak Mahindra Bank :

Kotak Mahindra Bank was set-up in February 2003, with its headquarters at Mumbai.

The bank offers different financial products for general customers and more focussed on corporate finance with an objective of supporting business, trade and industry growth. The bank also supports promoting stock trading, insurance business and wealth management.

Indusind Bank:

This bank was set-up in India in 1994 and it derives its name from the Indus valley civilization. This bank was an outcome of revision of Hinduja Brothers, non-resident Indian Businessmen and belong to Hinduja group.

City Union Bank:

The Khumbakonam bank Ltd was set-up in the year 1904. Initially, the bank started its identity as a regional bank but gradually it acquired the status as a big bank in Thanjavur District of India.

'YES BANK', India's fourth largest private sector Bank, is an outcome of the professional Entrepreneurship and highly competent top management team, to establish a high quality, customer centric, service.

III. REVIEW OF LITERATURE

Dr.Pandya Hemal. "Identifying Major Determinants Of Profitability For Selected Nationalized Banks In India". -March, 2014

The author in his article has focused on the relationship between profit and profitability. The author differentiated between the meaning of the two words by saying that one is the reflection of quantity and other one is the ability of the institution to earn the quantity. Many organizations use it as a mutually exclusive or inter dependent term.

The focus is known by the investors that there is a scope for getting return on their investment. The researcher in a study has used certain variables (both independent and dependent) to judge the relationship between the two.

Manuscript published on 30 August 2019.

*Correspondence Author(s)

K S L N S Subrahmanyam*, Department of Commerce, Koneru Lakshmaiah Education Foundation, Vaddeswaram, A. P, India. Email: [ksln@kluniversity.in](mailto:kslsn@kluniversity.in)

Dr A V N Murthy, Department of Commerce, Koneru Lakshmaiah Education Foundation, Vaddeswaram, A. P, India. Email dravnmurty@kluniversity.in

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an [open access](https://creativecommons.org/licenses/by-nc-nd/4.0/) article under the CC-BY-NC-ND license <http://creativecommons.org/licenses/by-nc-nd/4.0/>

Further, to validate the stand different models and techniques were used through statistical tools and tested the hypothesis by techniques like correlation and regression analysis. The author further found out that banks are influenced by certain internal and external factors and these factors had direct impact on the profitability of the banks. The author also used secondary source of data to test the hypothesis. Thrust was given on prominent ratios like ROE, ROA, Cash to Deposit etc., were found out and the study was positive because that ratio had some influence on profit and profitability.

BrindaDevi.V.A. "Study on the profitability analysis of private sector banks in India". Oct. 2013.

In the current article the author in order to know the strength of private sector banks have selected for study a set of variables and banks basing upon need of study. The author opined that private sector banks do not contribute to the economy of the country but focus only on their profits. The private sector banks came into existence basing upon the Nursimham Committee report, where the committee recommended that for the efficient performance of public sector banks the presence of private sector banks should be allowed in the country to do the banking business. The author made a study of taking a data of ten years from 2002 to 2012. The author conducted certain basic and secondary calculations like determining mean and standard deviation, co-efficient of variation and ANOVA test. The results indicated there is a positive relationship between the variables tested.

UrmilaBharti, et.al "Liquidity & Profitability analysis of commercial banks in India" – A Comparative study.- December 2014.

The authors in the article referred to the impact of economic reforms on the banking sector they also observed changes had great impact on efficiency, productivity and working styles in the banking industry. The focus was on the risk management system. They tried to establish the relationship between profitability and liquidity. These two have direct and proportionate impact on each other. The increase and decrease in the capital is the outcome of contribution of these two. The author used tukey's multiple comparison test in conjunction with ANOVA.

Amit Kumar Singh. "An analysis of profitability position of private bank in India". May 2015

The author in this article focused on the impact of profitability on the survival and growth of the banking industry and for this profitability ratio like interest spread, net profit margin, return on long term funds, return on net worth, return on assets and adjusted cash margin were used. The author felt that there is a need to identify between the deficient customer and surplus customer activities that strengthen or weakens the banking business. The author further emphasized the banks can be profitable when they need to address sophisticated solutions to complex financial problems. Like other authors this author also used certain stastical tools to validate their studies.

Dr.D.MahilaVasanthiet. al "Profitability Analysis of Selected Public and Private Banks in India"- February 2016

The researchers have focused on profitability and productivity because both are dependent on each other. The samples were randomly selected and conducted correction and T-test in their methodology to substantiate the research objective. The authors believed that banks have crucial role to play and mobilizing the deposits and making effective use

of such deposits in good investments. The regulating bodies and their policies has focused that banks need to support the growth of national economy. As part of the study the authors believe that banks can be strengthen through technology up-gradation, effective human resource management, improving the capital adequacy and addressing the NPA relaed issue.

Gangu Naidu M. "A Study of Financial Performance of Reputed Public Bank In India" November 2012.

The author in this article has focused on Andhra bank to know its financial performance for a period of 5 years. Important ratios were taken for the study to determine the mutuality of influence after finding out the correlation through variation. The author also focused upon different aspects of evaluation of banking industry in India.

Jaimin Patel. Et. al. "Comparative Study Of Profitability Of Nationalised Banks And Private Sector Banks". 2017

The researchers have taken two important aspects like productivity and profitability and their influence on financial performance of public and private sector banks. The period of study was 5 years and the data was collected from the secondary source. Three categories of banks were taken viz., SBI and its associates and private sector banks. The main thrust was on social banking to concentrate more on welfare of the people. Because of increasing competition the banks have no other option then to face to the stiff competition for their survival.

Dr.AdhikariKingshuk. Et. al "Profitability of State Bank of India: An Analysis"- June 2014

In the current article the authors are focused on different components of income and expenditure influencing the performance of the banks. Certain parameters like ROA, ROE, ROI and EPS were taken as indicators to establish the relationship between the financial system and its role in the development of the economy of the country. In the study the authors observed that public sector banks are better edge over private sector banks in terms or size, geographical location and access the low cost deposits this helps in mobilizing of resources which will strengthen the need of corporate finance by the banks. For this the authors also advised to strengthen the strategies. Certain important hypothesis were assumed relating to profit and profitability determination and statistical test like ANOVA was conducted to validate the study. All the tests were conducted at a significant level of 0.05 to 1%. Further coefficient and variation were calculated and found that results supported the study.

Rao V Narendar.Et. al "Profitability Of Banks in India: An Assessment"- 2005

The authors in this article focused upon private bank entries and foreign bank entries and performance of public sector banks. The author believed that a bundle of services needed to be provided to sectors like agriculture, manufacturing and other important sectors. The authors also felt that post liberalization period had greater impact on the performance of the banking industry. The stand like lowering CLR & SLR by RBI restricted the banks to commit the liabilities. Further they felt the banks to focus on new areas like infrastructure financing, leasing, insurance, investment banking and asset management.

One more aspect the authors suggested to focus on international financing. The period of study was 5 years from 1998 to 2003.

Definition of research:

Research comprises “creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and to use the stock of knowledge to new applications.”

Objectives:

1. To find out the profitability of select private banks post demonetisation.
2. To identify the factors which that indicate right performance of the select banks?
3. To analyze the effect of select factors on profitability of select banks.

Research Gap:

The review of literature reveals that there is a need to find out the impact of demonetization on the profitability of the select private sector banks.

Sample Size:

Five private banks were taken as sample for the study to know the impact of demonetization on these banks due to demonetization irrespective of their size.

Source of data:

The data was collected for the select banks from different secondary sources like annual reports of banks, money control and centre for monitoring Indian economy. .

Period of Study:

The period of study was 2014 to 2017.

Variables:

ROA is dependent variable, and ROE, NIM, etc., are dependent variables.

Hypothesis:

H₀: There is no effect of demonetisation on profitability of private sector banks

H₀: There is no significant relationship between independent and dependent variables

H₀: There is no impact between independent and dependent variables

Significance of study:

This study deals with the determinants that affect the profitability of private sector banks. Once the analysis of the results is done it can be seen whether null hypothesis is rejected or alternative hypothesis is accepted.

Limitations of study:

Only 5 selected banks were taken and only one year data after demonetisation was taken due to time constraints and availability of data. This data is not enough to analyze the overall profitability of private sector banks and it cannot be applied to other private sector banks in banking industry in India.

Empirical Analysis and Interpretation of Results

Data Analysis.

Analysis of Results

HDFC Bank

H₁: There is effect of demonetisation on profitability of private sector banks

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	PRE&POST Demonetization effect on ROA	-11.50937245	-56.584	1	.011
Pair 2	ROA - PROFIT PER EMPLOYEE	4482312.54919602	-2.810	1	.218
Pair 3	ROA - OPERATING PROFIT TO TOTAL ASSETS	4.65271346	4.142	1	.151
Pair 4	ROA - NON INTEREST INCOME TO TOTAL ASSETS	2.27375777	2.770	1	.221
Pair 5	ROA - NET INTEREST MARGIN	2.95570622	-5.929	1	.106
Pair 6	PRE&POST Demonetization effect on - INTEREST INCOME TO TOTAL ASSETS	-3.32790347	-25.640	1	.025
Pair 7	PRE&POST Demonetization effect on - INTEREST EXPENDITURE TO TOTAL ASSETS	-1.87267755	-53.622	1	.012
Pair 8	ROA - BUSINESS PER EMPLOYEE (CRORES)	328652490.08212610	-3.137	1	.196

The present analysis of the study is to validate the hypothesis that ROA is influenced by Interest Income To Total Assets, Interest Expenditure To Total Assets are below the significance level 0.005 and hence H₁ is accepted.

KOTAK MAHINDRA BANK

Paired Samples Test



Major Determinants of Profitability on Banking Industry (An Empirical Research)

		Paired Differences		t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference				
		Upper				
Pair 1	PRE&POST Demonetization effect on ROA	-5.83049468		-28.885	1	.022
Pair 2	PRE&POST Demonetization effect on BUSINESS PER EMPLOYEE (CRORES)	38440960.53277551		-7.695	1	.082
Pair 3	PRE&POST Demonetization effect on PROFIT PER EMPLOYEE	498800.59512670		-7.340	1	.086
Pair 4	PRE&POST Demonetization effect on - OPERATING PROFIT TO TOTAL ASSETS	6.05385541		3.241	1	.191
Pair 5	PRE&POST Demonetization effect on NON INTEREST INCOME TO TOTAL ASSETS	3.61323072		.850	1	.552
Pair 6	PRE&POST Demonetization effect on NET INTEREST MARGIN	3.90073362		-5.221	1	.120
Pair 7	PRE&POST Demonetization effect on - INTEREST EXPENDITURE TO TOTAL ASSETS	-1.01850979		-14.820	1	.043
Pair 8	PRE&POST Demonetization effect on INTEREST EXPENDITURE TO TOTAL ASSETS	-1.95701078		-37.527	1	.017

The present analysis of the study is to validate the hypothesis that ROA is influenced by Interest Income to Total Assets, Interest Expenditure To Total Assets are below the significance level 0.005 and hence H_1 is accepted.

CITY UNION BANK Paired Samples Test

		Paired Differences		t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference				
		Upper				
Pair 1	PRE&POST Demonetization effect on ROA	18.17234232		-5.807	1	.109
Pair 2	PRE&POST Demonetization effect on PROFIT PER EMPLOYEE	1967017.17995345		-3.835	1	.162
Pair 3	PRE&POST Demonetization effect on OPERATING PROFIT TO TOTAL ASSETS	4.24252255		4.583	1	.137
Pair 4	PRE&POST Demonetization effect on NON INTEREST INCOME TO TOTAL ASSETS	3.41856339		1.203	1	.441
Pair 5	PRE&POST Demonetization effect on NET INTEREST MARGIN	-9.7893597		-26.245	1	.024
Pair 6	PRE&POST Demonetization effect on INTEREST INCOME TO TOTAL ASSETS	-6.96668022		-147.881	1	.004
Pair 7	PRE&POST Demonetization effect on INTEREST EXPENDITURE TO TOTAL ASSETS	-2.67520770		-33.657	1	.019
Pair 8	PRE&POST Demonetization effect on BUSINESS PER EMPLOYEE (CRORES)	211322996.41542047		-3.832	1	.163

The present analysis of the study is to validate the hypothesis that ROA is influenced by Interest Income to Total Assets, Interest Expenditure To Total Assets are below the significance level 0.005 and hence H_1 is accepted.

INDUSIND BANK Paired Samples Test



		Paired Differences			
		95% Confidence Interval of the Difference			
		Upper	t	df	Sig. (2-tailed)
Pair 1	PRE&POST Demonetization effect on ROA	-2.93190734	-16.278	1	.039
Pair 2	PRE&POST Demonetization effect on PROFIT PER EMPLOYEE	1653435.59964556	-4.573	1	.137
Pair 3	PRE&POST Demonetization effect on OPERATING PROFIT TO TOTAL ASSETS	9.15462261	2.974	1	.207
Pair 4	PRE&POST Demonetization effect on NON INTEREST INCOME TO TOTAL ASSETS	3.94065284	-1.142	1	.458
Pair 5	PRE&POST Demonetization effect on NET INTEREST MARGIN	-1.73597136	-388.833	1	.002
Pair 6	PRE&POST Demonetization effect on INTEREST INCOME TO TOTAL ASSETS	-.81850979	-14.405	1	.044
Pair 7	PRE&POST Demonetization effect on INTEREST EXPENDITURE TO TOTAL ASSETS	5.39448650	-5.246	1	.120
Pair 8	PRE&POST Demonetization effect on BUSINESS PER EMPLOYEE (CRORES)	-64611737.00471044	-37.868	1	.017

The present analysis of the study is to validate the hypothesis that ROA is influenced by Interest Income to Total Assets, Interest Expenditure To Total Assets are below the significance level 0.005 and hence H₁ is accepted.

YES BANK
Paired Samples Test

		Paired Differences			
		95% Confidence Interval of the Difference			
		Upper	t	df	Sig. (2-tailed)
Pair 1	PRE&POST Demonetization effect on ROA	-7.45376876	-27.019	1	.024
Pair 2	PRE&POST Demonetization effect on PROFIT PER EMPLOYEE	1402760.71851353	-6.418	1	.098
Pair 3	PRE&POST –Demonetization effect on OPERATING PROFIT TO TOTAL ASSETS	7.43992577	3.072	1	.200
Pair 4	Pre & Post Demonetization Effect On Non Interest Income To Total Assets	2.62009342	-.776	1	.580
Pair 5	Pre & Post Demonetization Effect On Net Interest Margin	1.23626481	-6.642	1	.095
Pair 6	Pre & Post Demonetization Effect On Interest Income To Total Assets	-5.64876613	-162.571	1	.004
Pair 7	Pre & Post Demonetization Effect On Interest Expenditure To Total Assets	-2.81919215	-69.527	1	.009
Pair 8	Pre & Post Demonetization Effect On Business Per Employee (Crores)	-36318487.18091907	-17.664	1	.036

The present analysis of the study is to validate the hypothesis that ROA is influenced by Interest Income to Total Assets, Interest Expenditure To Total Assets are below the significance level 0.005 and hence H₁ is accepted.

INTERPRETATION: The study reveals that each and every bank has three variables which affect the profitability out of nine variables and the other six variables doesn't affect the profitability of bank.

HDFC BANK

H₂: There is significant relationship between independent and dependent variables

** Correlation Coefficient is significant at 0.01 level (2-tailed)

*Correlation Coefficient is also significant at 0.05% level (2-tailed)

Major Determinants of Profitability on Banking Industry (An Empirical Research)

The table indicates that business per employee and profit per employee have a high degree of positive association

	A	B	C	D	E	F	G	H	I
A	1								
B	.415	1							
C	.843**	.425	1						
D	-.818**	-.412	-.573	1					
E	.911**	.427	.683**	-.982**	1				
F	-.753**	-.524	-.752**	.806	-.821	1			
G	.005	-.169	-.245	.089	-.860	.557	1		
H	.686**	.275	.393	-.625	.673	-.254	.662	1	
I	.753**	.399	.990*	-.488.59	.596	-.715	-.300	.297	1

(.990), followed by non interest income to total assets and ROA (.911), interest income to total assets and ROA has lowest positive correlation.

KOTAK MAHINDRA BANK

	A	B	C	D	E	F	G	H	I
A	1								
B	.790**	1							
C	.785**	.659*	1						
D	-.455	-.170	-.791**	1					
E	.770**	.471	.915**	-.918**	1				
F	-.435	-.361	-.850**	.856**	-.807**	1			
G	.011	-.275	-.197	.105	-.071	.474	1		
H	.355	-.037	.409	-.514	.517	-.211	.761**	1	
I	.475	.428	.894**	-.829**	.804**	-.916**	-.388	.300	1

** Correlation Coefficient is significant at 0.01% level (2-tailed)

*Correlation Coefficient is also significant at 0.05% level (2-tailed)

The calculated value of non- interest income to total assets and profit per employee has a high degree of positive association i.e., (.915) followed by Business per employee and profit per employee i.e., (.894) , interest income to total assets and ROA has lowest positive correlation.

- | | |
|--|--|
| a. A-- ROA | B---ROE |
| b. C--- Profit Per Employee | D ---Operating Profit To Total Assets |
| c. E --- Non Interest Income To Total Assets | F --- Net Interest Margin |
| d. G --- Interest Income/ Total Assets | H --- Interest Expenditure To Total Assets |
| e. I --- Business Per Employee | |

CITY UNION BANK

	A	B	C	D	E	F	G	H	I
A	1								
B	.687**	1							
C	.070	-.521	1						
D	.361	.773**	-.869**	1					
E	-.060	-.604	.954**	-.952**	1				
F	.505	.500	-.563*	.759**	-.645	1			
G	.516	.097	.402	-.146	.327	.086	1		
H	.130	-.220	.682**	-.584*	.667	-.535*	.796**	1	

I	-.075	-.619*	.989**	-.915**	.956	-.631*	.342	.672**	1
---	-------	--------	--------	---------	------	--------	------	--------	---

** Correlation Coefficient is significant at 0.01% level (2-tailed)

*Correlation Coefficient is also significant at 0.05% level (2-tailed)

The table indicates that Business per employee and profit per employee has a high degree of positive association i.e., (.989) followed by non- interest income to total assets and profit per employee i.e., (.954),profit per employee and ROA has lowest positive correlation.

- A--- ROA
- C--- Profit Per Employee
- E --- Non Interest Income To Total Assets
- G --- Interest Income/ Total Assets
- I --- Business Per Employee
- B---ROE
- D ---Operating Profit To Total Assets
- F --- Net Interest Margin
- H --- Interest Expenditure To Total Assets

INDUS IND BANK

	A	B	C	D	E	F	G	H	I
A	1								
B	.713**	1							
C	.468	.248	1						
D	.027	.668**	.133	1					
E	.620*	-.068	.200	-.768**	1				
F	.879**	.825**	.414	.351	.287	1			
G	.354	.160	.046	-.265	.433	.246	1		
H	-.338	-.468	-.265	-.491	.168	-.522	.699**	1	
I	-.402	-.298	.579*	.261	-.458	-.313	-.409	-.129	1

** Correlation Coefficient is significant at 0.01% level (2-tailed)

*Correlation Coefficient is also significant at 0.05% level (2-tailed)

The table shows that net interest margin and ROA have a high degree of positive association i.e., (.879) followed by net interest margin and ROE i.e.,(.825),interest income to total assets and profit per employee has lowest positive correlation

- A--- ROA
- C--- Profit Per Employee
- E --- Non Interest Income To Total Assets
- G --- Interest Income/ Total Assets
- I --- Business Per Employee
- B---ROE
- D ---Operating Profit To Total Assets
- F --- Net Interest Margin
- H --- Interest Expenditure To Total Assets

YES BANK

	A	B	C	D	E	F	G	H	I
A	1								
B	.812**	1							
C	.800**	.861**	1						
D	.432	.400	.168	1					
E	.472	.322	.550	-.587*	1				
F	.246	-.028	-.081	.680**	-.498	1			
G	.670**	.795**	.654*	.495	.071	.498	1		
H	.700**	.902**	.759**	.370	.247	.241	.958**	1	
I	.474	.658*	.869**	.082	.353	-.069	.586*	.645*	1

** Correlation Coefficient is significant at the 0.01% level (2-tailed)

*Correlation Coefficient is also significant at the 0.05% level (2-tailed)

The table shows that interest expenditure to total assets and interest income/total assets have a high degree of positive association i.e., (.958) followed by interest expenditure to total assets and ROE i.e., (.902),interest income to total assets and non- interest income to total assets has lowest positive correlation

- A--- ROA
- C--- Profit Per Employee
- E --- Non Interest Income To Total Assets
- G --- Interest Income/ Total Assets
- I --- Business Per Employee
- B---ROE
- D ---Operating Profit To Total Assets
- F --- Net Interest Margin
- H --- Interest Expenditure To Total Assets

HDFC BANK

H₃: There is an impact of independent on dependent variables

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	-.016	.066		-.237	.819	-.171	.140
Impact of Profit Per Employee On	3.009E-8	.000	.053	.289	.781	.000	.000

Major Determinants of Profitability on Banking Industry (An Empirical Research)

Operating Profit To Total Assets	1.030	.053	2.154	19.604	.000	.906	1.155
Impact Of Non-Interest Income To Total Assets	1.012	.046	3.015	22.139	.000	.904	1.120
Impact Of Net Interest Margin on	-.001	.007	-.003	-.143	.890	-.018	.016
Interest Expenditure To Total Assets	-.002	.004	-.007	-.418	.689	-.012	.009
Business Per Employee (Crores)	-3.005E-10	.000	-.038	-.248	.811	.000	.000

a. Dependent Variable: ROA

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000 ^a	1.000	.999	.00602

A. Predictors: (Constant), Business Per Employee (Crore), Interest Expenditure To Total Assets, Operating Profit To Total Assets, Net Interest Margin, Non -Interest Income To Total Assets, Profit Per Employee

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.678	6	.113	3122.053	.000 ^b
	Residual	.000	7	.000		
	Total	.678	13			

a. Dependent Variable: ROA

b. Predictors: (Constant), Business Per Employee (Crores), Interest Expenditure To Total Assets, Operating Profit To Total Assets, Net Interest Margin, Non -Interest Income To Total Assets, Profit Per Employee

The present research is to validate the hypothesis built on Operating profit to total assets, Non -interest income to total assets are below the significance level of 0.05% and hence H₁ is accepted, adjusted R² value is .999 which means 99% the model and the study is supported by the variables selected.

KOTAK MAHINDRA BANK

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	-.034	.051		-.669	.528	-.159	.091
Impact of ROE	.002	.003	.016	.786	.462	-.005	.009
PROFIT PER EMPLOYEE	6.879E-8	.000	.067	1.149	.294	.000	.000
Impact Of Operating Profit To Total Assets	.952	.035	1.515	27.363	.000	.867	1.037
Impact Of Non-Interest Income To Total Assets	.965	.027	2.150	36.371	.000	.900	1.029
Impact Of Net Interest Margin On	.013	.012	.033	1.098	.314	-.016	.041
Interest Expenditure To Total Assets	-.002	.004	-.007	-.510	.628	-.012	.008
Business Per Employee (Crores)	-4.783E-10	.000	-.033	-1.016	.349	.000	.000

a. Dependent Variable: ROA

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000 ^a	1.000	.999	.00933

a. Predictors: (Constant), Business Per Employee (Crores), Interest Expenditure To Total Assets, Roe, Non-Interest Income To Total Assets, Net Interest Margin, Operating Profit To Total Assets, Profit Per Employee



ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.386	7	.198	2273.947	.000 ^b
	Residual	.001	6	.000		
	Total	1.386	13			

a. Dependent Variable: ROA

b. Predictors: (Constant), Business Per Employee (Crores), Interest Expenditure To Total Assets, Roe, Non-Interest Income To Total Assets, Net Interest Margin, Operating Profit To Total Assets, Profit Per Employee

The present research is to validate the hypothesis built on Operating profit to total assets, Non -interest income to total assets are below the significance level of 0.005 and hence H₁ is accepted, adjusted R² value is .999 which means 99% the model and the study is supported by the variables selected.

CITY UNION

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	.124	.081		1.532	.176	-.074	.322
Impact Of Roe	.000	.001	.006	.171	.870	-.003	.003
Profit Per Employee	3.221e-7	.000	.689	1.620	.156	.000	.000
Impact Of Operating Profit To Total Assets	.910	.082	2.931	11.135	.000	.710	1.110
Impact Of Non Interest Income To Total Assets	.886	.089	2.682	10.001	.000	.669	1.103
Impact Of Net Interest Margin On Interest Income To Total Assets	-.003	.007	-.011	-.386	.713	-.019	.014
Business Per Employee (Crores)	-2.763e-9	.000	-.642	-1.614	.158	.000	.000

a. Dependent Variable: ROA

Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	1.000 ^a	.999	.998	.00485

a. Predictors: (Constant), Business Per Employee (Crores), Interest Income To Total Assets, Roe, Net Interest Margin, Non-Interest Income To Total Assets, Operating Profit To Total Assets, Profit Per Employee

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.187	7	.027	1136.649	.000 ^b
	Residual	.000	6	.000		
	Total	.187	13			

a. Dependent Variable: ROA

b. Predictors: (Constant), Business Per Employee (Crores), Interest Income To Total Assets, Roe, Net Interest Margin, Non Interest Income To Total Assets, Operating Profit To Total Assets, Profit Per Employee

Major Determinants of Profitability on Banking Industry (An Empirical Research)

The present research is to validate the hypothesis built on Operating profit to total assets, Non -interest income to total assets are below the significance level of 0.005 and hence H_1 is accepted, adjusted R^2 value is .999 which means 99% the model and the study is supported by the variables selected.

INDUSIND BANK

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	.049	.050		.979	.366	-.074	.173
Impact Of Roe	-.003	.002	-.036	-1.395	.212	-.007	.002
Profit Per Employee	9.361E-9	.000	.009	.654	.538	.000	.000
Impact Of Operating Profit To Total Assets	1.038	.035	1.271	29.533	.000	.952	1.124
Impact Of Non Interest Income To Total Assets	1.009	.019	1.580	53.115	.000	.963	1.056
Impact Of Net Interest Margin On Interest Expenditure To Total Assets	-.002	.009	-.002	-.237	.820	-.025	.021
Business Per Employee (Crores)	-2.790E-10	.000	-.027	-1.467	.193	.000	.000

a. Dependent Variable: ROA

Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	1.000 ^a	1.000	1.000	.00542

a. Predictors: (Constant), Business Per Employee (Crores), Interest Expenditure To Total Assets, Non-Interest Income To Total Assets, Roe, Net Interest Margin, Profit Per Employee, Operating Profit To Total Assets

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.089	7	.584	19894.878	.000 ^b
	Residual	.000	6	.000		
	Total	4.089	13			

a. Dependent Variable: ROA

B. Predictors: (Constant), Business Per Employee (Crores), Interest Expenditure To Total Assets, Non Interest Income To Total Assets, Roe, Net Interest Margin, Profit Per Employee, Operating Profit To Total Assets

The present research is to validate the hypothesis built on Operating profit to total assets, Non -interest income to total assets are below the significance level of 0.005 and hence H_1 is accepted, adjusted R^2 value is .999 which means 99% the model and the study is supported by the variables selected.

**YES BANK
Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	-.013	.022		-.592	.580	-.070	.044
Impact Of Roe Profit Per Employee	.000	.001	.006	.506	.635	-.002	.003
Impact Of Operating Profit To Total Assets	1.346E-8	.000	.020	.857	.431	.000	.000
Impact Of Non Interest Income To Total Assets	.961	.010	1.047	99.434	.000	.936	.986
Impact Of Net Interest Margin On Interest Income To Total Assets	.970	.010	1.384	93.789	.000	.944	.997
Impact Of Net Interest Margin On Interest Income To Total Assets	-2.387	.030	-2.957	-78.300	.000	-2.465	-2.308
Interest Income To Total Assets	2.386	.028	11.188	84.474	.000	2.313	2.459
Impact Of Interest Expenditure To Total Assets	-2.385	.028	-9.547	-85.450	.000	-2.457	-2.313
BUSINESS PER EMPLOYEE (CRORES)	1.192E-10	.000	.012	.794	.463	.000	.000

a. Dependent Variable: ROA

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	1.000 ^a	1.000	1.000		.00364

a. Predictors: (Constant), Business Per Employee (Crores), Non-Interest Income To Total Assets, Operating Profit To Total Assets, Interest Expenditure To Total Assets, Net Interest Margin, Roe, Profit Per Employee, Interest Income To Total Assets

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.814	8	.352	26549.533	.000 ^b
	Residual	.000	5	.000		
	Total	2.814	13			

a. Dependent Variable: ROA

b. Predictors: (Constant), Business Per Employee (Crores), Non -Interest Income To Total Assets, Operating Profit To Total Assets, Interest Expenditure To Total Assets, Net Interest Margin, Roe, Profit Per Employee, Interest Income To Total Assets

The present research is to validate the hypothesis built on Operating profit to total assets, Non -interest income to total assets are below the significance level of 0.005 and hence H₁ is accepted, adjusted R² value is .999 which means 99% the model and the study is supported by the variables selected.

IV. SUMMARY OF ANALYSIS

HDFC BANK: ROA, Interest Income To Total Assets, Interest Expenditure To Total Assets are below the significance level 0.005 and hence H_1 is accepted. Business per employee and profit per employee have a high degree of positive association (.990), followed by non-interest income to total assets and ROA (.911), interest income to total assets and ROA has lowest positive correlation. Operating profit to total assets, Non-interest income to total assets are below the significance level 0.005 and hence H_1 is accepted, adjusted R^2 value is .999 which means 99% the model is accurate by the variables.

KOTAK MAHINDRA BANK: ROA, Interest Income To Total Assets, Interest Expenditure To Total Assets are below the significance level 0.005 and hence H_1 is accepted. Non-interest income to total assets and profit per employee have a high degree of positive association (.915) followed by Business per employee and profit per employee (.894), interest income to total assets and ROA has lowest positive correlation. Operating profit to total assets, Non-interest income to total assets is are below the significance level 0.005 and hence H_1 is accepted, adjusted R^2 value is .999 which means 99% the model is accurate by the variables.

CITY UNION BANK: Net Interest Margin, Interest Income To Total Assets, Interest Expenditure To Total Assets are below the significance level 0.005 and hence H_1 is accepted. Business per employee and profit per employee have a high degree of positive association (.989) followed by non-interest income to total assets and profit per employee (.954), profit per employee and roa has lowest positive correlation. Operating profit to total assets, Non-interest income to total assets is are below the significance level 0.005 and hence H_1 is accepted, adjusted R^2 value is .999 which means 99% the model is accurate by the variables.

INDUSIND BANK: Roa, Net Interest Margin, Interest Income To Total Assets, Business per employee are below the significance level 0.005 and hence H_1 is accepted. Net interest margin and roa have a high degree of positive association (.879) followed by net interest margin and roe (.825), interest income to total assets and profit per employee has lowest positive correlation. Operating profit to total assets, Non-interest income to total assets is are below the significance level 0.005 and hence H_1 is accepted, adjusted R^2 value is .999 which means 99% the model is accurate by the variables.

YES BANK: ROA, Interest Expenditure To Total Assets, Interest Income To Total Assets, Business per employee are below the significance level 0.005 and hence H_1 is accepted. interest expenditure to total assets and interest income/total assets have a high degree of positive association (.958) followed by interest expenditure to total assets and roe (.902), interest income to total assets and non-interest income to total assets has lowest positive correlation operating profit to total assets, Non-interest income to total assets, Net interest margin, Interest income to total assets, Interest expenditure to total assets is are below the significance level 0.005 and hence H_1 is accepted, adjusted R^2 value is .999 which means 99% the model is accurate by the variables.

FINDINGS:

1. The hypothesis of all the tests clearly indicate that demonetization had an impact on the profitability of the select private sector banks and it can be said there was greater impact of demonetization on the profitability because the sectors like business, trade, industry, had to suffer huge financial crisis. The profit might have come down but demonetization has no impact on profitability of the banks.
2. Since all the independent and dependent variables respond to each other perfectly it is observed the variables play crucial role in contributing to the level of profit of the banks. So it is necessary that each and every aspect of banking operation needs to be taken carefully.

REFERENCES

1. Thiagarajan S., Ayyappan S., Ramachandran A. & Sakthivadivel M (2011): "An Analysis of Determinants of Profitability in Public and Private Sector Banks in India" Research Journal of Social Science & Management vol. 01, No.6, October 2011.
2. Dr. Kajal Chaudhary & Monika Sharma, Performance of Indian Public Sector & Private Sectors banks a Comparative Study, International Journal Of Innovation, Management & Technology, Vol 2, No 3, June 2011, PP- 249-256.
3. Gupta SB. Monetary economics: institutions, theory and policy. New Delhi: S Chand and Company; 2001.
4. Koeva P. The performance of Indian banks during financial liberalization. International Monetary Fund Working Paper; 2003.
5. Kumbhakar SC, Sarkar S. De-regulation, ownership and efficiency in India banking. Arthaniti. 2004; 2(1-2):1-26.
6. Sensarma R. Cost and profit efficiency of Indian Banks during 1986-2003. Econ Polit Weekly. 2005 Mar; 40(12):198-09.
7. Rizvi HS, Rajan RS. Banking sector reforms in global economy. Manag Account. 2006 Aug; 16(5):617-21.
8. Singla HK. Financial performance of banks in India. The ICFAI Journal of Bank Manag. 2008 Feb; 7(1):50-62.
9. Ahmed J. Management of non-performing assets of commercial banks in India. Manag Account. 2009 Jun; 20(4):470-8.
10. Goel SK. Financial performance of commercial banks in India in post reforms era - an empirical study. Germany: LAP LAMBERT Academic Publishing; 2012. ISBN: 978-3-659-19176-3.