Impact of FDI Inflows on Productivity of Commercial Banks in India- An Analysis

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Abstract
Foreign direct investment is considered to be the life blood of economic development, especially for the developing and underdeveloped countries. Foreign Direct Investment has become sin-quo-non for the economic development of both developed and developing countries. This paper aimed at examining the impact of foreign direct investment on performance of scheduled commercial banks. Multiple Linear Regression technique was adopted to study the impact. This paper found that FDI in scheduled commercial banks has insignificant impact on total business per branch, net profit per branch, total business per employee, net profit per employee.
Keywords: FDI, Banking sector, Multiple Linear Regression technique, Productivity.

Introduction:

Foreign Direct Investment has become sin-quo-non for the economic development of both developed and developing countries. The Foreign Direct Investment means "cross border investment made by a resident in one economy in an enterprise in another economy, with the objective of establishing a lasting interest in the investee economy. FDI is also described as "investment into the business of a country by a company in another country". Indian banking has come a long way since India adopted reforms path and LPG sponsored FDI model in 1991. Today, Indian banks are as technology savvy as their counterparts in developed countries. As a result of liberalisation, privatization and globalization model, Indian banks have entered international market and global banks have become part of Indian market. Furthermore, FDI in the banking sector ensures to provide the benefits of technology transfer, better risk management, financial stability and better capitalization, integration into global economy, knowledge transfer and increasing competition.

Objectives of the Study:

- To analyse the Foreign Direct Investment inflows in Banking Sector.
- To study the impact of FDI on productivity of Scheduled commercial banks in India.

Research Hypothesis

- H_{01} Regression Coefficient of productivity of SCBs in India on FDI inflows in banking sector is insignificant.

- **H$_{02}$** Regression Coefficient of productivity of SCBs in India on FDI inflows in banking sector is significant

Research Methodology

The study is secondary based and the time period of the study is from 2001-02 to2014-15.The various sources of data were: Statistical Tables Relating to Banks in India, Basic Statistical Returns of Scheduled Commercial Banks, Report on Trend and Progress of Banking in India published by RBI. Multiple linear regression analysis technique was used to study the impact of FDI on performance of scheduled commercial banks in India.

Model Used: Productivity was measured by taking into consideration the variables such as total business per branch, net profit per branch. Employee productivity is calculated on the basis of total business per employee, net profit per employee.

Performance= f (FDI, EMPLY, TEXP, TEA, ASS, LIAB, DEP, ADV)

where,

Performance = Productivity

FDI= foreign direct investment

EMPLY= Employees

TEXP= Total Expenditure

TEA= Total Earnings

ASS= Assets

LIAB=Liabilities

DEP= Deposits

ADV= Advances

To study the impact of FDI on performance of scheduled commercial banks, the following multiple linear regression model has been used:

$\breve{Y} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots + \beta_n X_n$

Where,

$\breve{Y}$= Predicted or expected value of the dependent variables

$X_{123.n}$= Distinct independent or predicted variables

β_0= the value of $\breve{Y}$ when all of the independent variables ($X_{1 \text{ to } n)}$ are equal to zero.

$\beta_{123.n}$ =The estimated regression coefficients

FDI Inflows in the banking sector in India

Table 1: Financial year –wise FDI Inflows in Banking Sector

Year	FDI in RBI	Total FDI Inflows	Percent of RBI FDI to Total FDI Inflows	GR
2000-01	4029	454	11.27	-
2001-02	6130	767	12.51	0.69
2002-03	5035	739	14.68	-0.04
2003-04	4322	534	12.36	-0.28
2004-05	6051	1258	20.79	1.36
2005-06	8961	2233	24.92	0.78
2006-07	22826	7151	31.33	2.20
2007-08	34835	17129	49.17	1.40
2008-09	37838	17998	47.57	0.05
2009-10	37763	18990	50.29	0.06
2010-11	30380	12994	42.77	-0.32
2011-12	27829	20427	73.40	0.57
2012-13	32955	13468	40.87	-0.34
2013-14	21484	9113	42.42	-0.32
2014-15	34427	22530	65.44	1.47
Mean	20991.00	9719.00	35.99	
S.D.	13700.61	8360.36	19.71	
C.V	65.27	86.02	54.78	
CAGR	15.38	29.73	12.44	

Source: Reserve Bank of India, Monthly Bulletin, Various Issues

Table 1 indicates that compound annual growth rate of FDI in RBI is 15.38 and that of total FDI inflows is 29.73.compound annual growth rate is low in case of FDI in RBI as compared to total FDI inflows in India.

Table 2: Multiple Linear Regression Results of Impact of FDI on Total Business per Branch of SCBs in India

Model: TBB= f{FDI, EMPLY, TEXP, TEA, ASS, LIAB, DEP, ADV}							
Model	Unstandardized Coefficients		Standardized Coefficients	t- value	p- value	R Square	Adjusted R Square
	B	Std. Error	Beta				
1 (Constant)	-7.348	.999		-7.352	.000	.996	.991
FDI	1.397E-5	.000	.056	1.019	.348		
EMPLY	9.347E-6	.000	.384	8.029	.000		
TEXP	-1.274E-5	.000	-.990	-1.224	.267		
TEA	1.188E-5	.000	1.040	1.254	.257		
ASS	3.169E-7	.000	.013	.349	.739		
LIAB	-4.868E-8	.000	-.009	-.296	.777		
DEP	.001	.000	.697	11.540	.000		
ADV	4.948E-5	.001	.003	.051	.961		

Model: TBB= f{FDI, EMPLY, TEXP, TEA, ASS, LIAB, DEP, ADV}

Model		Unstandardized Coefficients		Standardized Coefficients	t- value	p- value	R Square	Adjusted R Square
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	EMPLY	9.347E-6	.000	.384	8.029	.000		
	TEXP	-1.274E-5	.000	-.990	-1.224	.267		
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	LIAB	-4.868E-8	.000	-.009	-.296	.777		
	DEP	.001	.000	.697	11.540	.000		
	ADV	4.948E-5	.001	.003	.051	.961		

F-Statistic: 202.382 on 8 and 6 DF, p value .000

Multiple Regression Equation: Y= -7.348+.00001(FDI) + .000009(EMPLY)- .00001(TEXP)+ .00001(TEA)- .00000004(LIAB)+.001(DEP)+.00004(ADV)

a. Dependent Variable: TBB

Table 2 shows the multiple linear regression results of impact of FDI on total business per branch (TBB) of SCBs in India. It can be seen from multiple linear regression results that FDI in banking sector is positive and t-value is 1.019 and p-value is .348 which is more than 0.05 (at 5%level of significance). Since p-value is more than 0.05, the null hypothesis is accepted. It is observed that one unit change in FDI leads to negative effect of 7.348 on total business per branch. Hence it can be concluded that FDI in banking sector has no statistical significant impact on the total business per branch of the bank. The R-square value .996 states that the dependent variable of total business per branch is influenced by all the independent variables by 99.6 percent.

Table 3: Multiple Linear Regression Results of Impact of FDI on net profit per Branch of SCBs in India

Model: NPB= f{FDI, EMPLY, TEXP, TEA, ASS, LIAB, DEP, ADV}

Model		Unstandardized Coefficients		Standardized Coefficients	t-value	p-value	R Square	Adjusted R Square
		B	Std. Error	Beta				
1	(Constant)	.446	.125		3.571	.012	.995	.989
	FDI	4.670E-6	.000	.172	2.726	.034		
	EMPLY	-4.792E-7	.000	-.182	-3.294	.017		
	TEXP	-1.645E-6	.000	-1.183	-1.265	.253		

TEA	2.640E-6	.000	2.139	2.230	.067		
ASS	-1.640E-7	.000	-.060	-1.445	.199		
LIAB	3.102E-8	.000	.050	1.510	.182		
DEP	-6.044E-6	.000	-.029	-.415	.693		
ADV	9.063E-5	.000	.043	.741	.487		

F Statistic: 151.530 on 8 and 6 DF, p value .000

Multiple Regression Equation: Y= .446 + .000004(FDI)-.0000004(EMPLY)-.000001(TEXP)+.000002(TEA)- .0000001(ASS)+ .00000003(LIAB)-.000006(DEP)+.00009(ADV)

a. Dependent Variable: NPB

Table 3 shows the multiple linear regression results of impact of FDI on net profit per branch (NPB) of SCBs in India. It can be seen from multiple linear regression results that FDI in banking sector is positive and t-value is 2.726 and p-value is .034 which is less than 0.05 (at 5%level of significance). Since p-value is less than 0.05, the null hypothesis is rejected and alternative hypothesis accepted. Hence it can be concluded that FDI in banking sector has statistical significant impact on the net profit per branch of the bank. It is also inferred that one unit change in FDI leads to positive effect of .446 on net profits per branch. The R-square value .995 states that the dependent variable of net profit per branch is influenced by all the independent variables by 99.5 percent.

Table 4: Multiple Linear Regression Results of Impact of FDI on Total business per employee of SCBs in India

Model: TBE= f{FDI, EMPLY, TEXP, TEA, ASS, LIAB, DEP, ADV}							
	Unstandardized Coefficients		Standardized Coefficients	t-value	p-value	R Square	Adjusted R Square
Model	B	Std. Error	Beta				
(Constant)	-.579	.114		-5.095	.002	.995	.988
FDI	3.466E-7	.000	.014	.222	.831		
EMPLY	6.581E-7	.000	.280	4.971	.003		
TEXP	-1.793E-6	.000	-1.446	-1.515	.180		
TEA	1.640E-6	.000	1.489	1.522	.179		
ASS	-2.414E-8	.000	-.010	-.234	.823		
LIAB	-1.288E-8	.000	-.023	-.689	.517		
DEP	.000	.000	.783	10.994	.000		
ADV	.000	.000	.060	1.015	.349		

F Statistic: 145.484 on 8 and 6 DF, p value .002

Multiple Regression Equation: Y= -.579+.0000003(FDI)+.0000006(EMPLY)-.000001(TEXP)+.000001(TEA)-.00000002(ASS)-.00000001(LIAB)+.000(DEP)+.000(ADV)

a. Dependent Variable: TBE

Table 4 shows the multiple linear regression results of impact of FDI on total business per employee (TBE) of SCBs in India. It can be seen from multiple linear regression results that FDI in banking sector is positive and t-value is .222 and p-value is .831 which is more than 0.05 (at 5%level of significance). Since p-value is more than 0.05, the null hypothesis is accepted. Hence it can be concluded that FDI in banking sector has no statistical significant impact on the total business per employee of the bank. It is inferred that one unit change in FDI leads to negative effect on total business per employee. The R-square value .995 states that the dependent variable of total business per employee is influenced by all the independent variables by 99.5 percent.

Table 5: Multiple Linear Regression Results of Impact of FDI on net profit per employee of SCBs in India

Model: NPE= f{FDI, EMPLY, TEXP, TEA, ASS, LIAB, DEP, ADV}								
		Unstandardized Coefficients		Standardized Coefficients	t- value	p-value	R Square	Adjusted R Square
	Model	B	Std. Error	Beta				
1	(Constant)	-.002	.014		-.134	.898	.990	.977
	FDI	4.612E-7	.000	.213	2.400	.053		
	EMPLY	-7.632E-9	.000	-.036	-.468	.656		
	TEXP	-1.883E-7	.000	-1.697	-1.291	.244		
	TEA	2.321E-7	.000	2.356	1.748	.131		
	ASS	-2.556E-8	.000	-.118	-2.008	.091		
	LIAB	7.784E-10	.000	.016	.338	.747		
	DEP	5.622E-6	.000	.338	3.440	.014		
	ADV	9.304E-6	.000	.055	.678	.523		

F Statistic: 76.303 on 8 and 6 DF, p value .000

Multiple Regression Equation: Y= -.002+.0000004(FDI)-.000000007(EMPLY)-.00000001(TEXP)+.0000002(TEA)-.00000002(ASS)+.000000000

a. Dependent Variable: NPE

Table 5 shows the multiple linear regression results of impact of FDI on net profit per employee (NPE) of SCBs in India. It can be seen from multiple linear regression results that FDI in banking sector is positive and t-value is 2.400 and p-value is .053 which is more than 0.05 (at 5%level of significance). Since p-value is more than 0.05, the null hypothesis is accepted. Hence it can be concluded that FDI in banking sector has no statistical significant impact on the net profit per employee of the bank. It is observed that one unit change in FDI leads to negative effect of .002 on net profit per employee. It is also inferred that one unit change in FDI leads to the R-square value .990 states that the dependent variable of net profit per employee is influenced by all the independent variables by 99.0 percent.

It is concluded from regression analysis that H_{01} that regression coefficient is productivity of SCBs in India on FDI inflows in banking sector is insignificant is partially accepted on the basis of total business per branch, total business per employee, net profit per employee, indicators of productivity of SCBs in India.

The null hypothesis H_{01} is partially rejected on the basis of indicators of productivity such as net profit per branch, and alternative hypothesis $H_{11 is}$ accepted that is regression coefficient of productivity of SCBs in India to FDI Inflows in banking sector is significant.

Conclusions

It is concluded that there are mixed results of impact of FDI on overall performance of scheduled commercial banks in India. FDI in scheduled commercial banks has   significant impact on total business per branch, total business per employee and net profit per employee. FDI in scheduled commercial banks has a significant impact on net profit per branch. Hence, FDI in the banking sector can be welcomed to accelerate the performance of scheduled commercial banks.

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