



Impact of FDI on the Capital Adequacy Ratio (CAR) of the Selected Private Sector Banks

Dr. Rakesh Kumar,

JCD Memorial College, Sirsa
(rakeshkumarasini12@gmail.com)

Prof. (Dr.) Surinder Singh

Chaudhary Devi Lal University,
Sirsa (Haryana)

(ABSTRACT)

The present study examined the impact of Foreign Direct Investment (FDI) on the Capital Adequacy Ratio (CAR) of the selected private sector banks. The required data are mainly collected from RBI Data warehouse, Report on Trends and Progress of Banking in India, IBA Bulletins, Journals and Online database. Linear Regression technique has been used to study the correlation among the variables and examine the impact of the independent variable (FDI) on dependent variable (CAR). Further, ANOVA and independent Sample t-test have been used to test the research hypotheses and validate the results of the study. The study found that there is no significant relationship between the FDI (independent variables) and CAR (independent variables). The CAR (dependent variable) is explained by the FDI (independent variables) to the level of 21 percent only and there is no significant impact of FDI on the CAR of the selected private sector banks. It is recommended that the capital raising capacity in India is very less, hence the country should require more investment from outside to take the Indian banking sector to worldwide.

Keywords: Capital Adequacy Ratio (CAR), Foreign Direct Investment (FDI), Globalization, liberalization, Capital Formation.

INTRODUCTION

Foreign investment means investment by one nation in the other nation. This investment can be done by government or by private sector. In other words foreign investment refers to investment by foreign investors in shares, debenture and bonds of Indian companies. Nowadays with the free flow of investment in most parts of the world, role of foreign investment has increased (*Pardeep, 2011*). Foreign Direct Investment plays a significant role in the process of economic development. According to international guidelines based on the recommendation by the IMF in its Balance of Payments Manual FDI is defined as international investment that reflects the objective of a resident entity in one economy obtaining a lasting interest and control in an enterprise resident in an economy other than that of the foreign direct investor. "Lasting interest" implies the existence of a long-term relationship between a direct investor and the enterprise and a significant degree of influence on the management of the enterprise (*Malhotra, 2018*). Foreign direct investment (FDI) has played an important role in the process of globalization during the past two decades. The rapid expansion in FDI by multinational enterprises since the mid-eighties may be attributed to significant changes in technologies, greater liberalization of trade and investment regimes, and deregulation and privatization of markets in many countries including developing countries like India. Capital formation is an important determinant of economic growth. While domestic investments add to the capital stock in an economy, FDI plays a complementary role in overall capital formation and in filling the gap between domestic savings and investment. At the macro-level, FDI is a non-debt-creating source of additional external finances. At the micro-level, FDI is expected to boost output, technology, skill levels, employment and linkages with other sectors and regions of the host economy (*Anitha, 2012*).

Capital Adequacy Ratio (CAR) is the ratio of a bank's capital in relation to its risk weighted assets and current liabilities. It is decided by central banks and bank regulators to prevent commercial banks from taking excess leverage and becoming insolvent in the process.
$$\text{Capital Adequacy Ratio} = \frac{\text{Tier-1 Capital} + \text{Tier-2 Capital}}{\text{Risk Weighted Asset}} \times 100$$
 (*The Economic Times*). The Bank of International Settlements separates capital into Tier-1 and Tier-2 based on the function and quality of the capital. Tier-1 capital is the primary way to measure a bank's financial health. It includes shareholder's equity and retained earnings, which are disclosed on financial statements. As it is the core capital held in reserves, Tier-1 capital is capable of absorbing losses without impacting business operations. On the other

hand, Tier-2 capital includes revalued reserves, undisclosed reserves, and hybrid securities. Since this type of capital has lower quality, is less liquid, and is more difficult to measure, it is known as supplementary capital. Risk-weighted assets are the sum of a bank's assets, weighted by risk. Banks usually have different classes of assets, such as cash, debentures, and bonds, and each class of asset is associated with a different level of risk. Risk weighting is decided based on the likelihood of an asset to decrease in value (*corporatefinanceinstitute.com*).

REVIEW OF LITERATURE

Ghosh and Phani (2004) examined the foreign direct investment limits, which were liberalized in India on February 2002 and allowed greater than 51 per cent ownership of private sector banks. They found that private sector banks gained almost double benefits in comparison to the government banks. They also concluded that the price increased higher than the smaller banks that have less debt, less efficiency, less productive, and burdened with non-performing assets (NPA) and their valuation reflect the vulnerability to the premium of potential takeover of the ineffective banks followed by the liberalization.

Laghane (2007) studied the impact of FDI model on borrower's account, bank branches, time deposits and profitability of domestic and foreign banks. The scholar found that the FDI model's has a positive impact on the foreign banks and the Indian banks profitability and the impact of the Foreign Direct Investment on the Indian banking sector which is an exception to a negative profitability. The scholar suggested that the Foreign Direct Investment should use for poverty reduction, unemployment reduction, primary education and priority sectors of banking.

Maswana (2010) studied the causal interactions between foreign direct investment (FDI) and banking intermediation in China, the results showed that real interest rates Granger-caused FDI inflows, while the latter led service sector's value added. Interestingly, interest rate spread and FDI mutually influenced each other. Contrary to conventional wisdom, FDI inflows found more influenced by opportunity costs in the banking sector. Finally, the finding spotlights the need for liberalisation of the entire interest rate and re-composition of capital inflows. The results suggest that growing FDI inflows in China might have contributed in hindering the development of banking intermediation.

Kumar and Selvan (2014) studied the impact of capital adequacy and profitability of commercial bank in India and concluded that the ICICI Bank has the most favored capital adequacy ratio compared to other various banks and commercial banks in India overall performing well.

Patil (2014) examined the performance of Indian FDI and non-FDI banks and found that the productivity of Indian banks had increased to some extent in the FDI liberalized period. The study showed a significant positive impact on return on assets (ROA) and total business of the banks, but showed a negative impact on the total net profits and income of the banks.

Maiti and Jana (2017) investigated the impact of various internal factors on profitability of five major bank groups in India namely State Bank of India & its Associates, Nationalised Banks, New Private Sector Banks, Old Private Sector Banks and Foreign Banks, consisting a total of 75 banks. The study found a strong evidence that profit per employee, net interest margin, net non-performing assets ratio and non-interest income have a significant impact on the profitability for all bank groups.

Antony and Paul (2018) analysed the effects of equity capital, reinvested earnings and intra-company loans on the Bank performance of Kenya and concluded that the foreign direct investment in terms of foreign equity capital, reinvested foreign earnings and intra-company loans, has a significant influence on bank performance in Kenya.

Shao and Xiao (2019) examined the effect of the state-owned commercial banks shareholding reforms on the domestic enterprises' outward foreign direct investment (OFDI) decisions, and found that the modern banking system can significantly increase the probability of OFDI of domestic non-state-owned enterprises (SOEs). They suggested that this effect may facilitate domestic enterprises to become them more competitive globally.

Muhammad, et. al. (2020) examined the relationship between the capitalization and profitability of 29 Pakistani banks over the period of 2007–2018. The study found that the profitability increases with an increase in capitalization up to a certain level, while beyond that level, a further increase in capitalization decreases profitability and indicate that banks who maintain their MCR (Minimum Capital Requirement) have higher profitability than those who do not.

Singh, et. al. (2020) analysed the trend of Foreign Direct Investment in Private Banks and concluded that Minor banks, ING VYSYA Bank and ICICI Banks has maximum growth in comparison to Major Banks, Axis Bank and HDFC Bank.

RESEARCH OBJECTIVE

The main objective of the study is to examine the impact of FDI on the Capital Adequacy Ratio (CAR) of the selected private sector banks. In this broader framework, the following are the specific objectives of the study:

1. To study the relationship between the FDI and CAR of the selected private sector banks.
2. To examine the contribution of FDI in the prediction of CAR in the selected private sector banks.
3. To analyze the impact of FDI on the CAR of the selected private sector banks.

RESEARCH HYPOTHESES

The following hypotheses were formulated to achieve the objectives and validate the results of the study:

H₀₁: There is no significant relationship between the FDI and CAR of the selected private sector banks.

H₀₂: There is no significant contribution of FDI in the prediction of CAR in the selected private sector banks.

H₀₃: There is no significant impact of FDI on the CAR of the selected private sector banks.

RESEARCH METHODOLOGY

The sample taken for the present study is sixteen old and new private sector Indian banks *i.e.* Axis Bank, Catholic Syrian Bank Ltd., City Union Bank Limited, Dhanlaxmi Bank, Federal Bank, HDFC Bank, ICICI Bank, Indusind Bank, Jammu & Kashmir Bank Ltd, Karnataka Bank Ltd., Karur Vysya Bank, Kotak Mahindra Bank Ltd, Lakshmi Vilas Bank, South Indian Bank, Tamilnad Mercantile Bank Ltd. and Yes Bank Ltd. Foreign Direct Investment (FDI) is taken as independent variable and Capital Adequacy Ratio (CAR) is dependent variable. The study covered a time span of fourteen years *i.e.* from 2004-05 to 2017-18. The required data are mainly collected from RBI Data warehouse, Report on Trends and Progress of Banking in India, IBA Bulletins, Journals and Online database. Linear Regression technique has been used to study the correlation among the variables and examine the impact of the independent variable (FDI) on dependent variable (CAR). Further, ANOVA and independent Sample t-test have been used to test the research hypotheses and validate the results of the study.

Table 1: Coefficients of Correlation among the variables

	Variables	CAR	FDI
Pearson Correlation	CAR	1.000	
	FDI	0.459	1.000
Sig.	CAR		
	FDI	0.037*	

Source: Reports of RBI and IBA (various issues).

Note: *Significant at 5 percent level.

Table-1 shows that there is a moderate degree of correlation between dependent and independent variable and the coefficients of correlation of CAR with FDI are 0.459. The p -value (0.037) of coefficients of correlation shows that there is no significant correlation between dependent and independent variable.

Table 2: Coefficients of CAR and Model Summary

Model		Unstandardized Coefficients		t- value	p- value	R-Square
		beta	Std. Error			
1	(Constant)	12.509	0.875	14.292	0.000	0.211
	FDI	0.043	0.022	1.933	0.074	

Source: Reports of RBI and IBA (various issues).

Note: *Significant at 5 percent level.

Table-2 shows that the coefficients of CAR, in which the independent variables have been included in the model for prediction of dependent variable. The unstandardized beta values have been used to compare the contribution of independent variable. The beta value is 0.043 for FDI, which shows that independent variable contributed in explaining the dependent variable. The results of t-test depict that the contribution of independent variables is not statistically significant ($p=0.074$) for the prediction of the dependent variable. Therefore, the null hypothesis (H_{02}) *i.e.* rejected. Further the analysis shows that the dependent variable (CAR) is explained by the independent variable (FDI) to the level of 21.1 percent only.

Table 3: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.142	1	9.142	3.737	0.074
Residual	34.252	14	2.447		
Total	43.394	15			

Source: Reports of RBI and IBA (various issues).

Note: *Significant at 5 percent level.

ANOVA results in Table-3 depicts that there is no significant impact of independent variables on dependent variable ($p=0.074$), therefore the null hypothesis (H_{03}) *i.e.* there is no significant impact of FDI on the CAR of the selected private sector banks is rejected at 5 percent level of significance.

CONCLUSIONS AND RECOMMENDATIONS

The study found that there is no significant relationship between the FDI (independent variables) and CAR (dependent variables). The CAR (dependent variable) is explained by the FDI (independent variables) to the level of only 21 percent and there is no significant impact of FDI on the CAR of the selected private sector banks. It is recommended that the capital raising capacity in India is very less, hence the country should require more investment from outside to take the Indian banking sector to worldwide.

REFERENCES

- Anitha, R. (2012). Foreign Direct Investment and Economic Growth in India. *International Journal of Marketing, Financial Services & Management Research*, 1 (8), 108-125, ISSN 2277-3622.
- Antony, K. & Paul, S. (2018). Foreign Direct Investment and Bank Performance in Kenya. *IOSR Journal of Business and Management*, 20 (7), 10-20, accessed from <http://www.Iosrjournals.org/iosr-jbm/papers/Vol20-issue7 /pdf> on 10.03.2020.
- Ghosh, C. & Phani, B.V. (2004). The Effect of Liberalization of Foreign Direct Investment (FDI) Limits on Domestic Stocks: Evidence from the Indian Banking Sector, 1-29, accessed from: <http://ssrn.com/abstract=546422> on 02.10.2020.
- Kumar, J. and Selvan, R. T. (2014). Capital Adequacy Determinants and Profitability of Selected Indian Commercial Banks. *Global Journal for Research Analysis*, 3 (11), 57-59, accessed from <https://www.worldwidejournals.com> on 25/02/2021.
- Laghane, K. B. (2007). Foreign Direct Investment and Indian Banking Sector. *Recent Advances in Management, Marketing and Finances*, 8 (10), 31-34.
- Maiti, A. & Jana, S. K. (2017). Determinants of Profitability of Banks in India: A Panel Data Analysis. *Scholars Journal of Economics, Business and Management*, 4(7), 436-445 accessed from <https://www.researchgate.net /publication> on 12.12.2020.
- Malhotra, S. (2018). *Basic Components of Foreign Direct Investment*. Accessed from <http://www.shareyouressays.com>.
- Maswana, J. C. (2010). Assessing the Banking Intermediation and Inward Foreign Direct Investment in China. *International Journal of Economics and Business Research*, 2(5), 329-340, accessed from <https://www.inderscienceonline.com/doi/abs/10.1504/IJEBR. 2010.035003> on 04.04.2021.

- Muhammad, H., Tan, Y., Malik, A. and Qurat. U. A. (2020). A Study on the Impact of Capitalization on the Profitability of Banks in Emerging Markets: A Case of Pakistan. *Journal of Risk and Financial Management*, 1-21, 13 (9), accessed from Journal of Risk and Financial Management | An Open Access Journal from MDPI on 05/03/2021.
- Pardeep. (2011). Foreign Direct Investment and Industrial Development in India. Thesis submitted in Dept. of Commerce, MDU, Rohtak.
- Patil, J. (2014). Performance evaluation of Indian FDI and non-FDI banks: A comparative analysis. Thesis Submitted in the Department of economics, Osmania University, Hyderabad.
- Shao, Y. & Xiao, C. (2019). Bank system reform and outward foreign direct investment of Chinese enterprises. *Applied Economics Letters*, 26 (18), 1511–1515, ISSN: 1350-4851, accessed from <https://www.tandfonline.com/loi/rael20> on 1/04/2021.
- Singh, Priyanka, Satguru, R. Y., Shukla, Anuja (2020). Comparative Analysis of Foreign Direct Investment in Indian Banking Sector. *Journal of Critical Reviews*, 7 (7), 64-69, accessed from <http://www.jcreview.com/fulltext/197-1588900248.pdf> on 04/04/2021.
- <https://corporatefinanceinstitute.com/resources/knowledge/finance/capital-adequacy-ratio-> car.
- <https://economictimes.indiatimes.com/definition/capital-adequacy-ratio>.