INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT

IJRCM

A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

Indexed & Listed at:

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., EBSCO Publishing, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A.,

Open J-Gage, India [link of the same is duly available at Inflibnet of University Grants Commission (U.G.C.)],

Index Copernicus Publishers Panel, Poland with IC Value of 5.09 & number of libraries all around the world.

Circulated all over the world & Google has verified that scholars of more than 2151 Cities in 155 countries/territories are visiting our journal on regular basis.

Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA

http://ijrcm.org.in/

CONTENTS

CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the area of Computer, Business, Finance, Marketing, Human Resource Management, General Management, Banking, Insurance, Corporate Governance and emerging paradigms in allied subjects like Accounting Education; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Monetary Policy; Portfolio & Security Analysis; Public Policy Economics; Real Estate; Regional Economics; Tax Accounting; Advertising & Promotion Management; Business Education; Management Information Systems (MIS); Business Law, Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labor Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; Public Administration; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism, Hospitality & Leisure; Transportation/Physical Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Digital Logic; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Multimedia; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic and Web Design. The above mentioned tracks are only indicative, and not exhaustive.

Anybody can submit the soft copy of his/her manuscript **anytime** in M.S. Word format after preparing the same as per our submission guidelines duly available on our website under the heading guidelines for submission, at the email address: **infoijrcm@gmail.com**.

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION:**

DATED: _____

THE EDITOR
IJRCM

Subject: **SUBMISSION OF MANUSCRIPT IN THE AREA OF .**

(e.g. Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)

DEAR SIR/MADAM

Please find my submission of manuscript entitled '_____' for possible publication in your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published elsewhere in any language fully or partly, nor is it under review for publication elsewhere.

I affirm that all the author (s) have seen and agreed to the submitted version of the manuscript and their inclusion of name (s) as co-author (s).

Also, if my/our manuscript is accepted, I/We agree to comply with the formalities as given on the website of the journal & you are free to publish our contribution in any of your journals.

NAME OF CORRESPONDING AUTHOR:
Designation:
Affiliation with full address, contact numbers & Pin Code:
Residential address with Pin Code:
Mobile Number (s):
Landline Number (s):
E-mail Address:
Alternate E-mail Address:

NOTES:

a) The whole manuscript is required to be in ***ONE MS WORD FILE*** only (pdf. version is liable to be rejected without any consideration), which will start from the covering letter, inside the manuscript.
b) The sender is required to mention the following in the **SUBJECT COLUMN** of the mail:
New Manuscript for Review in the area of (**Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/ Engineering/Mathematics/other, please specify)**
c) There is no need to give any text in the body of mail, except the cases where the author wishes to give any specific message w.r.t. to the manuscript.
d) The total size of the file containing the manuscript is required to be below **500 KB**.
e) Abstract alone will not be considered for review, and the author is required to submit the complete manuscript in the first instance.
f) The journal gives acknowledgement w.r.t. the receipt of every email and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of manuscript, within two days of submission, the corresponding author is required to demand for the same by sending separate mail to the journal.

2. **MANUSCRIPT TITLE:** The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.

3. **AUTHOR NAME (S) & AFFILIATIONS:** The author (s) **full name**, **designation**, **affiliation** (s), **address**, **mobile/landline numbers**, and **email/alternate email address** should be in italic & 11-point Calibri Font. It must be centered underneath the title.

4. **ABSTRACT:** Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain the background, aims, methods, results & conclusion in a single para. Abbreviations must be mentioned in full.

5. **KEYWORDS:** Abstract must be followed by a list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.

6. **MANUSCRIPT:** Manuscript must be in ***BRITISH ENGLISH*** prepared on a standard A4 size ***PORTRAIT SETTING PAPER***. It must be prepared on a single space and single column with 1" margin set for top, bottom, left and right. It should be typed in 8 point Calibri Font with page numbers at the bottom and centre of every page. It should be free from grammatical, spelling and punctuation errors and must be thoroughly edited.

7. **HEADINGS:** All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.

8. **SUB-HEADINGS:** All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.

9. **MAIN TEXT:** The main text should follow the following sequence:

INTRODUCTION

REVIEW OF LITERATURE

NEED/IMPORTANCE OF THE STUDY

STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

SCOPE FOR FURTHER RESEARCH

ACKNOWLEDGMENTS

REFERENCES

APPENDIX/ANNEXURE

It should be in a 8 point Calibri Font, single spaced and justified. The manuscript should preferably not exceed ***5000 WORDS***.

10. **FIGURES & TABLES:** These should be simple, crystal clear, centered, separately numbered &self explained, and **titles must be above the table/figure**. **Sources of data should be mentioned below the table/figure**. It should be ensured that the tables/figures are referred to from the main text.

11. **EQUATIONS:**These should be consecutively numbered in parentheses, horizontally centered with equation number placed at the right.

12. **REFERENCES:** The list of all references should be alphabetically arranged. The author (s) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow **Harvard Style of Referencing**. The author (s) are supposed to follow the references as per the following:

- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
- Use (**ed.**) for one editor, and (**ed.s)** for multiple editors.
- When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
- Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
- The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
- For titles in a language other than English, provide an English translation in parentheses.
- The location of endnotes within the text should be indicated by superscript numbers.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

BOOKS

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

WEBSITES

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

PERFORMANCE OF FOREIGN BANKS IN INDIA: AN EVALUATION

DR. VIJAY KUMAR SHARMA
PROFESSOR
DEPARTMENT OF COMMERCE
HIMACHAL PRADESH UNIVERSITY
SHIMLA

ANUJ KUMAR
ASST. PROFESSOR
GOVERNMENT DEGREE COLLEGE
JOGINDER NAGAR

ABSTRACT

Commercial banks occupies crucial role in the economic development of a country. The paper investigates the impact of banking sector reforms on the performance of individual foreign banks. Banking reforms have brought sea changes in the banking space. The major concern in Indian Financial Sector has been the profitability of commercial banking industry. The performance of a bank can be measured by a number of indicators. Profitability is the most important indicator which assumes a greater importance in the ever changing scenario of financial sector reforms. The viability of banks depends largely on the adequacy of profits and profitability. The study has analyzed the impact of banking sector reforms on the performance of 15 foreign banks in India in the pre-reform (1987-1995), post- reform period (1996-2010) and whole study period (1987-2010). The underlying objective was to empirically test, whether the selected variables had significant impact on the profitability of foreign banks or not. The impact of banking sector reforms was well reflected through the undertaken variables. The undertaken variables have shown significant impact on total income in the post-reform period.

KEYWORDS

Linear Production Function, Cobb-Douglas Production Function, Multicollinearity, Return to Scale.

INTRODUCTION

The present paper assess the impact of banking sector reforms on the performance of individual foreign banks. The foreign banks as a matter of policy did not encourage the rural banking and depositors with less than a minimum amount in the pre-reform period. In the early nineties, a customer with less than Rs.5000 was not eligible to open an account in most of the foreign banks. In the late nineties, the limit was raised to Rs. 10000. The restricted branch expansion and deposits policies intensified competition only within the group. It led to the decline in rate of growth in deposits mobilization in the post-reform period.

At the end of the year 2009-10, there were 34 foreign banks having their operation in India. The foreign banks are still smaller in size as compared to new private sector banks. The total assets of foreign banks was Rs. 445129 crore and that of old private sector banks Rs. 232292 crore, new private sector banks Rs. 795464 crore and public sector banks Rs. 3765757 crore at the end of the year 2009-10.

The various studies made in assessing the performance of commercial banks with different banking indicators may be reviewed as; **Robert (1993)** the study has attempted to find out the trends in profitability in public sector banks in India during the period 1973-1987.The study has also assessed the operational efficiency of public sector banks and estimated behavioural function for profit based on the key variables, affecting profit for individual banks and for the banking industry as a whole. **C.Ravi, Pramodh, V.and Nagabhushanam, T. (2008)** have measured the productivity levels of 27 public sector banks. **The Financial Express (2008)** analyzed scheduled commercial banks on the criteria of: strength and soundness, credit quality, growth, efficiency and profitability. **Gupta, R.K. and Sumeet Kaur Sibal (2008)** have used capital adequacy, asset quality, management, earnings quality and liquidity (CAMEL) model for evaluating 20 old and 10 new private sector banks. **Sinha, Ram Pratap and Biswajit Chatterjee (2008)** made a comparison of fund based operating performance and total factor productivity growth of selected Indian Commercial Banks (20 public sector, 8 private sector and 2 foreign commercial banks) for the five year period 2000-01 to 2004-05 using Data Envelopment Analysis and Malmquist Total Factor Productivity (TFP) index. **Goyal, Ritu and Rajinder Kaur (2008)** analyzed the performance of 7 new private sector banks operating in India during the period 2001-2007 with five parameters, capital adequacy, asset quality, employees efficiency, earnings quality and liquidity. **Arora, Sangeeta and Shubpreet Kaur (2008)** have studied the determinants of diversification of banks in India to analyze the financial performance of banks over the period 2000-06.The banks have been categorized into four categories i.e. Nationalized Banks, SBI and Associates, New Private Sector Banks and Foreign Banks. **Pal, Karam and Puja Goyal (2008)** have analyzed the cross relationship among various components of productivity for Public, Private and Foreign Banks for the period 2001-02 to 2005-06, using statistical tools like average, annual compound growth rate, regression and Parametric tests have been used to establish, evaluate and quantify the cross-sectional relationship among the variables. **Verma, Satish and Rohit Saini (2010-2011)** analyzed the relation between market structure, conduct and performance in the Indian banking industry in order to examine the relative role of efficiency and market power in determining the profitability of Indian banks for the period 1984-85 to 2007-08.

OBJECTIVES OF THE STUDY

1. To empirically test the impact of selected variables on the performance of foreign banks.
2. To test whether the selected variables had significantly contributed towards banks profitability or not.
3. To study the magnitude and direction of the relationship between different explanatory variables
4. To explain the variations in profitability by the different combination of variables for foreign banks.

RESEARCH METHODOLOGY

For the purpose of determining the impact of reforms on the performance of foreign banks, the period has been divided into three parts. The study covers the time period 1987-1995 (pre-reform period), 1996-2010 (post-reform period) and 1987-2010 the whole study period. The various studies have also shown that there has been a significant transformation in the structure of the banking sector. The relative importance of the public sector banks has been declining on account of emergence of new private sector banks and entry of more and more foreign banks. Therefore, it was imperative to analyze the impact of banking sector reforms on the performance of foreign banks. The information has been collected from various relevant publications of Reserve Bank of India (RBI) and Indian Banks Association (IBA).In addition to it information has also been collected from various journals, newspapers, magazines and websites etc. The study has included all the twenty-six public sector banks working in India.

The study has undertaken the following variables; Total Assets (X_1), Net Interest Margin (X_2), Total Expenditure (X_3), Total Business (X_4), Non-Interest Income (X_5), Establishment Expenses (X_6), Number of Employees (X_7), Number of Branches (X_8) and Net Worth (X_9). The impact of different regulatory norms is going to be

well reflected in terms of behavior of various selected variables. In order to satisfy the stated objectives, linear production function of the following form has been tried out:

$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4$ ---------- $b_nx_n + e^u$

Where

a= Intercept, b_i's are regression coefficients and X_i's are independent variables, N= Number of input variables, e^u =Error term or disturbance in the relationship representing factors other than x that affects y. e^u also stands for unobserved factors. It does not matter how many explanatory variables are included in each stage. There shall always be factors which cannot be included and are collectively contained in u.

For computing Return to Scale the Cobb-Douglas Production Function was estimated. In mathematical form it is expressed as

$Y = aL^n C^{(1-n)}$

Where

Y = Output, L = Labour, C = Capital, a and n are positive constants and n < 1.

In order to measure the relationships between changes in inputs and outputs, the function was estimated as follow

$Y = a\ X_1^{b_1}\ X_2^{b_2}\ X_3^{b_3}\ X_4^{b_4}$ ----------$X_n^{b_n}\ e^u$

Where

Y = dependent variable, a = Intercept, bi's are regression coefficients and X_i's are independent variables = Number of input variables, e^u = error term.

The function has the ingredients of essential non-elasticities. But it can be converted into a linear function in logarithms which give the elasticities of production of each input factor separately and independently. In the logarithmic form, the function can be written as

$\log Y = \log a + b_1 \log x_1 + b_2 \log x_2 + b_3 \log x_3 + b_4 \log x_4 +$ ---------- $b_n \log x_n + e^u$

For this function, the parameters are elasticities and the elasticities of the individual factors are their exponents in the production function. The sum of the exponents shows the degree of 'Return to scale' in production i.e. indicating the percentage by which output shall increase if all inputs are increased by 1 percent. For examining the nature of Return to Scale the following algorithm was used

If $(b_1 + b_2 + b_3 + b_4 +$ ---------- $+b_n) < 1$, Decreasing Return to Scale.

If $(b_1 + b_2 + b_3 + b_4 +$ ---------- $+b_n) = 1$, Constant Return to Scale.

If $(b_1 + b_2 + b_3 + b_4 +$ ---------- $+b_n) > 1$, Increasing Return to Scale.

To examine the linear relationship among explanatory variables, multicollinearity was examined by computing the correlation coefficients for these variables. If the explanatory variables are perfectly linear correlated the parameters become indeterminate. In most cases there is some degree of intercorrelation among the explanatory variables. The simple bi-variate correlation coefficients for each pair of explanatory variables were computed and found between zero and unity and the values were tested for the multicollinearity. **Koutsoyiannis (2003)** If the intercorrelation between the explanatory variables is perfect($r\ x_i\ x_j$=1) then the estimates of the coefficients are indeterminate and the standard errors of these estimates become infinitely large. These are known as the consequences of multicollinearity. If the X's are not perfectly collinear, but are to a certain degree correlated ($0 < r\ x_i\ x_j < 1$), the effects of collinearity are uncertain.

CHOICE OF INPUTS AND OUTPUTS

The ratio between number of observations and number of input and output variables need to be specified. **Cooper et.al. (2000)** stated that number of observations should be at least three times the sum of input and output variables.

It was also necessary to get agree on common set of inputs and outputs to be included in the study. A resource used by a unit should be included as input. A unit shall convert resources to produce outputs so that the outputs should include the amount of products and services produced by the unit. Therefore, the output may include a range of performance and activity measures. In addition to this, other external factors, which may affect the production of these outputs, must be identified and included in the assessment model.

In the present study, the undertaken variables haven been put into two category i.e. growth and efficiency. Growth criteria has been assessed on the basis of total assets, net interest margins, total expenditure and total business as input variables and total income as output variables. The growth in the performance of the bank results mainly from the increase in total assets, net interest margins, total business and decline in total expenditure. Efficiency has been measured on the basis of non interest income, establishment expenses, number of employees and number of branches as input variables and total income as output variables. The other reason for conducting regression analysis with four explanatory variables under growth and efficiency criteria was as number of observations in the pre and post reform period were not enough to adjust all explanatory variables together with explained variables.

The total income has been considered as measure of output, which is particularly applicable to the Indian banking industry. After the financial deregulation, banks in India are paying more attention to increase their gross income. It also reflects the integrated contribution of all input facilities and management. Most of the studies of the Indian banking industry; **Subrahmanyam** (1984, 1993 and 1995), **Subrahmanyam and Swamy** (1994), **Aggarwal** (1991) follow this measure of output.

RESULTS AND ANALYSIS

GROWTH DETERMINANTS

The performance of different sampled foreign banks has been measured in terms of financial measurement. The most widely used variable to measure the profitability of banks is total income. This variable has been considered explained variable i.e. Total Income (Y).The other four variables considered as explanatory variables were, Total Assets (X_1), Net Interest Margin (X_2), Total Expenditure (X_3), and Total Business (X_4) put under growth criteria. The Linear Production Function of following type;

$Y = a+b_1X_1+b_2X_2+b_3X_3+b_4X_4+e^u$ has been worked out.

Along with this Cobb-Douglas Production Function

$Y = a\ X_1^{b_1}\ X_2^{b_2}\ X_3^{b_3}\ X_4^{b_4}$ ----------$X_n^{b_n}\ e^u$ has been worked out.

Where

Y= Total Income

X_1= Total Assets

X_2= Net-Interest Margin

X_3= Total Expenditure

X_4= Total Business

E^u= Error Term

The reason for conducting regression analysis with four explanatory variables in the first stage was as number of observations in the pre and post reform period were not enough to adjust all explanatory variables together with explained variables.

The fitted function has been explained for three periods of time, 1987-1995 (pre-reform period), 1996-2010 (post-reform period) and 1987-2010 (whole study period). The function is exhibited in tables 1.1.1 in pre-reform period, 1.1.2 in post-reform period and 1.1.3 for the entire study period.

The regression coefficient in respect of total assets '(b_1)' was significant for CBNA and HSBCL but negative in the post –reform period. It magnified that one unit decrease in 'b_1' shall reduce the total income by -0.119 units for CBNA and by -0.039 units for HSBCL, keeping ,net-interest margin, total expenditure and total business constant at their arithmetic mean levels.

During the entire period of study, it was significant for SCBL and HSBCL (negative). The reason for the insignificance of 'b_1' for most of the banks in the pre, post and entire study period could be attributed to less expansion by the banks and their policies of operating in urban areas.

The regression coefficient in respect of net-interest margin '(b_2)' was significant for DBAG in the pre-reform period and for BOANA, BONS and BOTML in the pot-reform period. During the entire period of study, the regression coefficient was turned out to be significant for; AEBC, BOANA, BNPP, Mb PSC, OIB S.A.O.G., SCBL, BONS, BOTML and HSBCL.

In the post-reform period ,for BOANA and BOTML, magnified that one unit increase in 'b_2' shall increase the total income by 0.841 units for BOANA and by 1.234 units for BOTML, keeping , total assets, total expenditure and total business constant at their arithmetic mean levels.

TABLE 1.1.1: LINEAR PRODUCTION FUNCTION FOR FOREIGN BANKS (GROWTH CRITERIA): (1987-1995)

Banks	Intercept	b_1	b_2	b_3	b_4	R^2	d.f.	F-Value	Return to Scale	Scale
ADCBL	-0.305	0.044	1.021	1.240	-0.067	0.996	3	217.591	1.049	IRS
	(1.243)	***(0.069)***	***(0.654)***	***(0.523)***	***(0.057)***					
AEBC	-7.678	0.043	0.375	0.879*	-0.020	0.995	3	153.556	1.045	IRS
	(16.526)	***(0.051)***	***(0.645)***	***(0.276)***	***(0.047)***					
BOANA	4.398	-0.071	-0.815	1.847**	0.033	0.991	3	84.792	1.066	IRS
	(22.813)	***(0.032)***	***(0.366)***	***(0.159)***	***(0.027)***					
BOB&K B.S.C.	-0.246	-0.009	0.185	0.945**	0.02	0.999	3	893.311	1.029	IRS
	(0.369)	***(0.031)***	***(0.204)***	***(0.158)***	***(0.023)***					
BNPP	-1.391	-0.012	0.082	1.207**	0.006	0.999	3	970.611	1.035	IRS
	(4.969)	***(0.016)***	***(0.179)***	***(0.261)***	***(0.046)***					
CBNA	-21.248	0.03	-0.237	0.911*	0.009	0.996	3	195.677	1.045	IRS
	(32.792)	***(0.047)***	***(0.563)***	***(0.278)***	***(0.038)***					
DBAG	2.985	0.012	0.644*	0.700*	-0.003	0.999	3	538.562	0.978	DRS
	(2.844)	***(0.024)***	***(0.151)***	***(0.090)***	***(0.019)***					
Mb PSC	-0.325	-0.05	-0.073	0.755	0.076	0.995	3	160.070	1.115	IRS
	(2.034)	***(0.027)***	***(0.403)***	***(0.176)***	***(0.026)***					
OIB S.A.O.G	1.381	0.009	-0.248	1.210*	-0.016	0.994	3	127.847	0.926	DRS
	(2.015)	***(0.022)***	***(0.396)***	***(0.343)***	***(0.044)***					
SGB	0.016	0.011	0.219	1.036**	-0.010	0.999	3	1394.926	1.016	IRS
	(1.202)	***(0.015)***	***(0.123)***	***(0.057)***	***(0.011)***					
SBL	0.017	-0.094	0.347	-0.498	0.213	0.908	3	7.377	0.984	DRS
	(0.334)	***(0.058)***	***(0.239)***	***(0.551)***	***(0.074)***					
SCBL	68.367	-0.252	1.371	0.332	0.302	0.965	3	20.463	0.569	DRS
	(96.725)	***(0.111)***	***(1.569)***	***(0.194)***	***(0.099)***					
BONS	-0.096	0.000	0.180	1.147**	-0.014	0.999	3	1432.790	1.020	IRS
	(0.453)	***(0.001)***	***(0.095)***	***(0.084)***	***(0.010)***					
BOTML	-2.721	0.005	0.639	0.723*	0.015	0.997	3	229.175	1.188	IRS
	(7.774)	***(0.019)***	***(0.268)***	***(0.211)***	***(0.029)***					
HSBCL	25.001	-0.02	-0.707	1.088**	0.041	0.999	3	688.348	0.950	DRS
	(13.404)	***(0.009)***	***(0.586)***	***(0.157)***	***(0.036)***					

***.significant at the 0.01 probability level (2 tailed).*

**.significant at the 0.05 probability level (2 tailed).*

$Y=a+b_1x_1+b_2x_2+b_3x_3+b_4x_4$

Y=total incomeb_1=total assets,b_2=net interest margin,b_3=total expenditure,

b_4=total business.

Figures in parenthesis indicate standard errors.

.#Return to Scale have been calculated using Cobb-Douglas Production Function provided in the annexure.

TABLE 1.1.2: LINEAR PRODUCTION FUNCTION FOR FOREIGN BANKS (GROWTH CRITERIA): (1996-2010)

Banks	Intercept	b_1	b_2	b_3	b_4	R^2	d.f.	F-Value	Return to Scale	Scale
ADCBL	4.106	-0.020	0.328	0.719**	0.040	0.976	10	104.321	0.979	DRS
	(8.407)	***(0.026)***	***(0.408)***	***(0.119)***	***(0.022)***					
AEBC	-5.835	0.021	0.558	0.741**	0.006	0.972	10	87.676	1.015	IRS
	(28.337)	***(0.017)***	***(0.420)***	***(0.070)***	***(0.017)***					
BOANA	-73.745	0.003	0.841**	0.737**	0.024	0.991	10	275.471	1.076	IRS
	(39.655)	***(0.006)***	***(0.171)***	***(0.101)***	***(0.015)***					
BOB&K B.S.C.	-8.710	-0.022	0.373	0.772*	0.048	0.636	10	4.362	0.922	DRS
	(17.371)	***(0.073)***	***(0.777)***	***(0.340)***	***(0.061)***					
BNPP	-24.520	0.012	0.440	0.962*	-0.009	0.989	10	225.237	1.086	IRS
	(23.958)	***(0.032)***	***(0.274)***	***(0.326)***	***(0.015)***					
CBNA	-638.175	-0.119*	1.229	1.713**	0.042	0.996	10	668.680	0.970	DRS
	(241.309)	***(0.046)***	***(0.712)***	***(0.225)***	***(0.023)***					
DBAG	27.324	0.003	0.011	1.015**	0.010	0.995	10	540.232	0.956	DRS
	(37.143)	***(0.013)***	***(0.318)***	***(0.155)***	***(0.022)***					
Mb PSC	4.338	0.015	0.584	0.650*	-0.006	0.861	10	15.548	0.836	DRS
	(6.708)	***(0.017)***	***(0.487)***	***(0.217)***	***(0.031)***					
OIB S.A.O.G	16.118	-0.048	0.286	0.007	0.121**	0.964	10	67.470	0.525	DRS
	(10.675)	***(0.024)***	***(0.254)***	***(0.113)***	***(0.019)***					
SGB	-13.343	0.004	0.199	0.911**	0.023	0.975	10	96.198	1.062	IRS
	(8.227)	***(0.010)***	***(0.363)***	***(0.114)***	***(0.019)***					
SBL	-0.049	-0.001	0.681	1.268**	-0.011	0.555	10	3.114	0.752	DRS
	(1.812)	***(0.004)***	***(0.540)***	***(0.383)***	***(0.027)***					
SCBL	-33.048	0.010	0.352	0.976**	0.000	0.998	10	1621.826	0.994	DRS
	(123.651)	***(0.020)***	***(0.339)***	***(0.261)***	***(0.017)***					
BONS	-21.404	0.004	0.758**	0.956**	0.002	0.991	10	289.043	1.014	IRS
	(11.939)	***(0.030)***	***(0.190)***	***(0.098)***	***(0.027)***					
BOTML	47.157	-0.037	1.234*	0.053	0.057	0.916	10	27.471	0.904	DRS
	(24.812)	***(0.045)***	***(0.537)***	***(0.094)***	***(0.055)***					
HSBCL	-81.338	-0.039*	0.445	1.238**	0.023*	0.999	10	3316.364	1.014	IRS
	(70.040)	***(0.012)***	***(0.211)***	***(0.113)***	***(0.009)***					

***.significant at the 0.01 probability level (2 tailed).*

**.significant at the 0.05 probability level (2 tailed).*

$Y=a+b_1x_1+b_2x_2+b_3x_3+b_4x_4$

Y=total incomeb_1=total assets,b_2=net interest margin,b_3=total expenditure,

b_4=total business.

Figures in parenthesis indicate standard errors.

.[#]Return to Scale have been calculated using Cobb-Douglas Production Function provided in the annexure.

TABLE 1.1.3: LINEAR PRODUCTION FUNCTION FOR FOREIGN BANKS (GROWTH CRITERIA) : (1987-2010)

Banks	Intercept	b_1	b_2	b_3	b_4	R^2	d.f.	F-Value	Return to Scale	Scale
ADCBL	0.095	-0.021	0.449	0.738**	0.041*	0.987	18	337.083	1.034	IRS
	(3.283)	***(0.019)***	***(0.247)***	***(0.086)***	***(0.016)***					
AEBC	-4.677	0.021	0.517*	0.742**	0.005	0.988	18	361.807	1.004	IRS
	(11.463)	***(0.012)***	***(0.208)***	***(0.048)***	***(0.012)***					
BOANA	4.959	0.013	0.811**	0.938**	-0.018	0.985	18	306.910	1.030	IRS
	(19.779)	***(0.007)***	***(0.200)***	***(0.121)***	***(0.016)***					
BOB&K B.S.C.	-0.708	-0.025	0.294	0.709**	0.046	0.897	18	39.295	0.993	DRS
	(4.024)	***(0.054)***	***(0.406)***	***(0.216)***	***(0.044)***					
BNPP	-5.427	0.018	0.477*	0.853**	-0.013	0.992	18	591.051	1.020	IRS
	(10.240)	***(0.019)***	***(0.177)***	***(0.187)***	***(0.011)***					
CBNA	-123.435	-0.045	0.969	1.305**	0.000	0.996	18	1095.954	1.007	IRS
	(90.051)	***(0.034)***	***(0.628)***	***(0.141)***	***(0.014)***					
DBAG	5.661	0.003	-0.015	1.056**	0.009	0.997	18	1459.363	0.995	DRS
	(16.665)	***(0.010)***	***(0.234)***	***(0.105)***	***(0.017)***					
Mb PSC	2.383	0.018	0.681*	0.642**	-0.006	0.909	18	44.818	0.943	DRS
	(2.863)	***(0.010)***	***(0.295)***	***(0.128)***	***(0.017)***					
OIB S.A.O.G	-2.233	-0.002	0.526*	0.005	0.098**	0.946	18	78.897	1.067	IRS
	(3.242)	***(0.009)***	***(0.184)***	***(0.111)***	***(0.020)***					
SGB	-5.313	0.003	0.266	0.892**	0.017	0.982	18	248.335	1.025	IRS
	(4.028)	***(0.007)***	***(0.250)***	***(0.085)***	***(0.013)***					
SBL	-0.115	-0.001	0.421	1.325**	-0.01	0.903	18	41.937	1.020	IRS
	(0.467)	***(0.003)***	***(0.316)***	***(0.160)***	***(0.021)***					
SCBL	123.541	0.059**	1.048*	0.198	-0.029	0.995	18	883.235	0.935	DRS
	(83.933)	***(0.017)***	***(0.434)***	***(0.181)***	***(0.018)***					
BONS	-9.358	0.017	0.758**	0.907**	-0.009	0.994	18	736.314	1.030	IRS
	(5.147)	***(0.016)***	***(0.145)***	***(0.071)***	***(0.014)***					
BOTML	23.567	-0.004	1.556**	0.121	0.017	0.949	18	84.692	0.816	DRS
	(10.366)	***(0.029)***	***(0.328)***	***(0.063)***	***(0.036)***					
HSBCL	-17.562	-0.031**	0.547**	1.155**	(0.016**	0.999	18	7079.763	0.996	DRS
	(25.797)	***(0.008)***	***(0.141)***	***(0.071)***	***(0.005)***					

***.significant at the 0.01 probability level (2 tailed).*

**.significant at the 0.05 probability level (2 tailed).*

$Y=a+b_1x_1+b_2x_2+b_3x_3+b_4x_4$

Y=total incomeb_1=total assets,b_2=net interest margin,b_3=total expenditure,

b_4=total business.

Figures in parenthesis indicate standard errors.

.#Return to Scale have been calculated using Cobb-Douglas Production Function provided in the annexure.

The reasons for the significance of 'b_2' could be attributed to low interest cost of deposits offered and disintermediation by the foreign banks in the form of offering variety of loans in the post-reform period.

The regression coefficient for total expenditure '(b_3)' turned out to be significant for all foreign banks except ADCBL, Mb PSC, SBL and SCBL in the pre-reform period and OIB S.A.O.G and BOTML in the post-reform period. During the entire period of study, the regression coefficient was significant for all banks except, OIB S.A.O.G, SCBL and BOTML.

In the post-reform period, the regression coefficient for CBNA magnified that one unit increase in 'b_3' shall increase the total income by 1.713 units, keeping, total assets, net-interest margin and total business, constant at their arithmetic mean levels. The significance of regression coefficient 'b_3' for most of the banks magnified their expansion and diversification plans.

The regression coefficient in respect of total business '(b_4)' was turned out to be significant for OIB S.A.O.G and HSBCL in the post-reform period. During the entire period of study, it turned out to be significant for ADCBL, OIB S.A.O.G. and HSBCL.

In case of OIB S.A.O.G. 'b_4' magnified that one unit increase in total business shall increase the total income by 0.121 units, keeping, total assets, net-interest margin and total expenditure, constant at their arithmetic mean levels.

The reason for the insignificance of regression coefficient 'b_4' for most of the banks was on account of decline in total business of banks. Further, most of the banks were located in the urban areas and discouraging small deposits.

The regression line has given a good fit to the observed data, since this line explained almost more than 90 percent of the total variation of the 'Y' values around their mean in the pre, post and whole study period. The remaining variation was unaccounted for by the regression line and was attributed to the factors included in the disturbance variable 'u'. R^2 was found significant for all banks.

The Return to Scale has exhibited that banks like; DBAG, OIB S.A.O.G. SBL, SCBL and HSBCL were operating on Decreasing Return to Scale (DRS) and others on Increasing Return to Scale (IRS) in the pre-reform period. In the post- reform period, ADCBL, BOB&KB.S.C., CBNA, DBAG, Mb PSC, OIB S.A.O.G., SBL, SCBL, and BOTML were operating on DRS. All banks which were operating on DRS in the pre-reform period managed to operate on IRS in the post-reform period except OIB S.A.O.G., SBL and SCBL. In the post-reform period, the return to scale for BNPP magnified that one percent increase in b_1, b_2, b_3, and b_4 put together shall increase the total income by 1.086 percent.

During the entire period, ADCBL, AEBC, BOANA, BNPP, CBNA, OIB S.A.O.G.SGB, SBL and BONS were operating on IRS.

To conclude, all regressors taken together had shown significant impact for HSBCL in the post and entire study period. However in most of the banks all regressors, either individually or collectively, had explained significant impact on regressand.

EFFICIENCY DETERMINANTS

In the second stage, the remaining four explanatory variables were regressed. The total income was considered 'explained variable' and other four variables, non-interest income, establishment expenses, number of employees and number of branches were considered as explanatory variables and put under efficiency criteria. The Linear Production Function of the following form

$Y = a+b_5X_5+b_6X_6+b_7X_7+b_8X_8+e^u$ has been worked out.

Along with this Cobb-Douglas Production Function

$Y = a\ X_5^{b5}\ X_6^{b6}\ X_7^{b7}\ X_8^{b8}$ ----------$X_n^{bn}\ e^u$ has been worked out.

Where
Y= Total Income
X_5= Non-Interest Income
X_6= Establishment Expenses
X_7= Number of Employees
X_8= Number of Branches
E^u= Error Term

The fitted function has been explained for three periods of time, 1987-1995 (pre-reform period),1996-2010 (post-reform period) and 1987-2010 (whole study period).The function is exhibited in tables 1.1.4 in pre-reform period, 1.1.5 in post-reform period and 1.1.6 for the entire study period.

In the pre-reform period, regression coefficient for non-interest income '(b_5)' was turned out to be significant for AEBC, BOANA, Mb PSC, SGB, SCBL, BOTML and HSBCL. The regression coefficient for SGB magnified that one unit increase in 'b_5' shall increase the total income by 7.273 units, keeping ,establishment expenses, number of employees and number of branches constant at their arithmetic mean levels.

In the post-reform period, the regression coefficient 'b_5' was turned out to be significant for BOB&KB.S.C.,BNPP, CBNA, DBAG, OIB S.A.O.G., SBL, SCBL, BONS and HSBCL. The regression coefficient was significant for SCBL and HSBCL in the pre and post-reform period. During the entire period of study, regression coefficient was turned out to be significant for BOB&KB.S.C., BNPP, CBNA, DBAG, and OIB S.A.O.G. SBL, SCBL, BONS and HSBCL.

The regression coefficient was turned out to be significant for SCBL and HSBCL in the pre, post and entire study period. The regression coefficient 'b_5' for SCBL and HSBCL magnified that one unit increase in non-interest income shall increase their total income by 2.067 units and by 2.897 units in the post-reform period, keeping ,establishment expenses, number of employees and number of branches constant at their arithmetic mean levels.

The reason for significance of 'b_5' for most of the banks could be attributed to emergence of non-interest income as major source of their income as compared to public and domestic private sector banks.

The regression coefficient for establishment expenses '(b_6)' was turned out to be significant for the banks SCBL and BOTML in the pre-reform period. It was as high as referring one unit increase in 'b_6' shall increase the total income by 19.092 units ,keeping, non-interest income, number of employees and number of branches constant at their arithmetic mean levels.

TABLE 1.1.4: LINEAR PRODUCTION FUNCTION FOR FOREIGN BANKS (EFFICIENCY CRITERIA): (1987-1995)

Banks	Intercept	b_5	b_6	b_7	b_8	R^2	d.f.	F-Value	Return to Scale	Scale
ADCBL	-35.251	3.275	1.751	0.862	0.000	0.881	4	9.871	4.129	IRS
	(15.709)	***(1.839)***	***(13.079)***	***(0.456)***	***0.000***					
AEBC	-346.086	2.075**	1.888	-0.143	152.375**	0.997	3	246.167	2.781	IRS
	(75.464)	***(0.376)***	***(2.255)***	***(0.093)***	***(18.674)***					
BOANA	-218.527	2.459**	0.663	0.737	0.000	0.927	4	16.936	1.480	IRS
	(122.710)	***(0.518)***	***(2.826)***	***(0.290)***	***0.000***					
BOB&K B.S.C.	-2.445	0.067	6.506	0.899*	-19.533	0.945	3	12.950	1.160	IRS
	(7.991)	***(1.953)***	***(9.508)***	***(0.221)***	***(8.846)***					
BNPP	218.85	-1.856	2.722	0.082	-45.306	0.969	3	23.842	0.665	DRS
	(65.928)	***(2.708)***	***(5.734)***	***(0.347)***	***(24.793)***					
CBNA	-113.987	2.388	7.093	0.218	0.000	0.870	4	8.900	1.407	IRS
	(350.016)	***(1.565)***	***(10.049)***	***(0.299)***	***0.000***					
DBAG	6.062	4.818	8.833	-0.273	9.348	0.947	3	13.406	1.511	IRS
	(36.308)	***(1.761)***	***(9.504)***	***(0.709)***	***(49.485)***					
Mb PSC	12.794	3.657*	33.592*	-0.39	0.000	0.956	4	28.923	1.316	IRS
	(15.892)	***(0.979)***	***(7.679)***	***(0.246)***	***0.000***					
OIB S.A.O.G	-16.215	-2.762	20.052	1.461	-25.524	0.896	3	6.446	2.131	IRS
	(8.615)	***(3.799)***	***(14.928)***	***(0.489)***	***(11.676)***					
SGB	-102.272	7.273*	-5.382	1.33	34.623*	0.987	3	58.025	0.869	DRS
	(30.524)	***(1.267)***	***(10.159)***	***(0.708)***	***(6.367)***					
SBL	-4.871	0.518	2.438	0.114	0.000	0.862	4	8.322	4.094	DRS
	(4.928)	***(0.399)***	***(0.894)***	***(0.126)***	***0.000***					
SCBL	-960.414	0.669*	6.887*	0.341	0.000	0.890	4	10.772	4.979	IRS
	(417.471)	***(0.214)***	***(1.510)***	***(0.145)***	***0.000***					
BONS	-15.278	2.944	5.118	1.326	-30.060	0.926	3	9.416	1.938	IRS
	(22.961)	***(3.748)***	***(19.829)***	***(0.872)***	***(16.269)***					
BOTML	9.985	2.474**	19.092**	-0.710	0.000	0.995	4	296.487	0.846	DRS
	(8.484)	***(0.425)***	***(2.642)***	***(0.321)***	***0.000***					
HSBCL	-956.883	2.386*	1.155	0.150	36.761	0.998	3	316.267	0.654	DRS
	(392.257)	***(0.545)***	***(1.763)***	***(0.098)***	***(19.850)***					

***.significant at the 0.01 probability level (2 tailed).*
**.significant at the 0.05 probability level (2 tailed).*
$Y=a+b_5x_5+b_6x_6+b_7x_7+b_8x_8$
Y=total income,b_5=non interest income,b_6=establishment expenses,
b_7=number of employees,b_8=number of branches.
Figures in parenthesis indicate standard errors.
.#Return to Scale have been calculated using Cobb-Douglas Production Function provided in the annexure.

TABLE 1.1.5: LINEAR PRODUCTION FUNCTION FOR FOREIGN BANKS (EFFICIENCY CRITERIA): (1996-2010)

Banks	Intercept	b_5	b_6	b_7	b_8	R^2	d.f.	F-Value	Return to Scale	Scale
ADCBL	-57.350	1.770	15.202	2.123	-32.999	0.449	10	2.041	1.470	IRS
	(93.285)	***(2.024)***	***(12.346)***	***(0.961)***	***(31.819)***					
AEBC	208.58	0.778	-0.025	-0.105	47.649*	0.670	10	5.069	0.881	DRS
	(76.390)	***(0.800)***	***(2.606)***	***(0.079)***	***(18.602)***					
BOANA	851.723	1.154	2.650	0.516	-155.756	0.828	10	12.073	(-)0.42	(-)DRS
	(612.606)	***(0.724)***	***(2.967)***	***(0.305)***	***(109.661)***					
BOB&K B.S.C.	30.251	2.566**	-3.114*	0.145	0.000	0.776	11	12.703	0.488	DRS
	(15.552)	***(0.497)***	***(1.397)***	***(0.204)***	***0.000***					
BNPP	38.389	2.139**	2.005	0.370	-10.066	0.947	10	44.916	0.770	DRS
	(126.776)	***(0.632)***	***(1.913)***	***(0.334)***	***(20.341)***					
CBNA	538.805	1.413**	5.360**	0.062	-0.477	0.997	10	947.943	0.748	DRS
	(126.370)	***(0.116)***	***(0.582)***	***(0.104)***	***(7.183)***					
DBAG	-198.89	0.740**	0.485	0.622**	63.909**	0.995	10	484.113	1.020	IRS
	(73.720)	***(0.143)***	***(0.329)***	***(0.122)***	***(18.910)***					
Mb PSC	32.633	1.517	-1.545	0.514	-10.575	0.445	10	2.002	0.314	DRS
	(28.473)	***(1.451)***	***(7.659)***	***(0.423)***	***(13.254)***					
OIB S.A.O.G	-6.543	1.257*	-2.418	0.728**	0.000	0.885	11	28.292	1.123	IRS
	(6.453)	***(0.553)***	***(2.734)***	***(0.116)***	***0.000***					
SGB	-67.94	1.221	-0.485	2.320**	-15.769	0.832	10	12.358	1.567	IRS
	(47.798)	***(0.769)***	***(1.483)***	***(0.646)***	***(14.089)***					
SBL	3.307	0.897**	0.350	-0.034	-0.509	0.735	10	6.939	0.306	DRS
	(3.039)	***(0.215)***	***(0.601)***	***(0.067)***	***(0.607)***					
SCBL	179.439	2.067**	0.542	-0.102	29.675**	0.993	10	343.410	0.825	DRS
	(197.569)	***(0.528)***	***(1.821)***	***(0.138)***	***(7.497)***					
BONS	-134.295	5.402**	-28.287**	1.621	28.368	0.976	10	101.360	1.809	IRS
	(53.875)	***(0.599)***	***(8.517)***	***(0.879)***	***(25.941)***					
BOTML	341.509	0.804	-6.175	0.293	-33.506	0.240	10	0.790	(-)0.446	(-)DRS
	(245.246)	***(1.335)***	***(4.937)***	***(0.872)***	***(53.370)***					
HSBCL	-85.564	2.897**	-0.529	0.310	-13.002	0.996	10	678.811	0.902	DRS
	(495.158)	***(0.334)***	***(1.874)***	***(0.209)***	***(12.706)***					

***.significant at the 0.01 probability level (2 tailed).*

**.significant at the 0.05 probability level (2 tailed).*

$Y=a+b_5x_5+b_6x_6+b_7x_7+b_8x_8$

Y=total income, b_5=non interest income, b_6=establishment expenses,

b_7=number of employees, b_8=number of branches.

Figures in parenthesis indicate standard errors.

.[#]Return to Scale have been calculated using Cobb-Douglas Production Function provided in the annexure.

TABLE 1.1.6: LINEAR PRODUCTION FUNCTION FOR FOREIGN BANKS (EFFICIENCY CRITERIA): (1987-2010)

Banks	Intercept	b_5	b_6	b_7	b_8	R^2	d.f.	F-Value	Return to Scale	Scale
ADCBL	-78.487	1.965	16.521	2.175**	-27.886	0.683	18	9.711	2.228	IRS
	(37.214)	***(1.528)***	***(7.957)***	***(0.544)***	***(23.869)***					
AEBC	-108.593	0.815	1.110	-0.112	47.172*	0.730	18	12.199	0.717	DRS
	(70.740)	***(0.758)***	***(2.387)***	***(0.081)***	***(17.573)***					
BOANA	-447.829	0.380	7.338**	0.989**	53.729	0.827	18	21.518	0.636	DRS
	(480.002)	***(0.652)***	***(2.424)***	***(0.279)***	***(94.592)***					
BOB&K B.S.C.	-6.130	2.268**	-2.818	0.428*	5.931	0.887	18	35.199	1.153	IRS
	(7.611)	***(0.510)***	***(1.420)***	***(0.183)***	***(8.697)***					
BNPP	44.194	1.744**	3.325*	-0.04	2.54	0.954	18	94.393	-0.027	(-)DRS
	(74.706)	***(0.521)***	***(1.522)***	***(0.230)***	***(10.844)***					
CBNA	348.216	1.488**	5.208**	0.042	5.883	0.995	18	953.416	0.837	DRS
	(134.766)	***(0.138)***	***(0.690)***	***(0.116)***	***(7.884)***					
DBAG	-135.302	0.729**	0.677*	0.625**	50.790**	0.996	18	1058.009	1.440	IRS
	(31.332)	***(0.116)***	***(0.239)***	***(0.103)***	***(12.324)***					
Mb PSC	39.566	0.006	11.805*	-0.116	-15.572	0.372	18	2.663	-0.216	(-)DRS
	(27.677)	***(1.024)***	***(4.336)***	***(0.262)***	***(13.134)***					
OIB S.A.O.G	-13.093	1.350*	-0.308	0.716**	0.979	0.856	18	26.687	1.673	IRS
	(6.408)	***(0.569)***	***(2.662)***	***(0.112)***	***(4.300)***					
SGB	-93.634	1.297	-0.023	2.250**	-7.314	0.876	18	31.942	2.176	IRS
	(26.765)	***(0.623)***	***(1.043)***	***(0.509)***	***(7.262)***					
SBL	2.032	0.991**	0.595	-0.019	-0.584	0.938	18	67.680	-0.032	(-)DRS
	(2.447)	***(0.095)***	***(0.500)***	***(0.056)***	***(0.499)***					
SCBL	166.974	1.610**	2.682	-0.286*	37.558**	0.990	18	470.621	0.927	DRS
	(200.736)	***(0.459)***	***(1.578)***	***(0.113)***	***(6.373)***					
BONS	-53.788	5.153**	-24.993**	1.830*	-0.973	0.981	18	232.843	1.194	IRS
	(18.973)	***(0.488)***	***(6.888)***	***(0.709)***	***(15.744)***					
BOTML	-45.285	1.410	-3.709	0.817	32.257	0.445	18	3.617	0.904	DRS
	(121.223)	***(1.158)***	***(4.311)***	***(0.709)***	***(35.877)***					
HSBCL	-455.156	2.961**	-1.118	0.355*	-4.585	0.997	18	1354.281	0.577	DRS
	(337.394)	***(0.270)***	***(1.433)***	***(0.161)***	***(9.660)***					

***.significant at the 0.01 probability level (2 tailed).*

**.significant at the 0.05 probability level (2 tailed).*

$Y=a+b_5x_5+b_6x_6+b_7x_7+b_8x_8$

Y=total income,b_5=non-interest income,b_6=establishment expenses,

b_7=number of employees,b_8=number of branches.

Figures in parenthesis indicate standard errors.

.[#]Return to Scale have been calculated using Cobb-Douglas Production Function provided in the annexure.

In the post-reform period, the regression coefficient was turned out to be significant for BOB&K B.S.C. (negative), CBNA, and BONS (negative).The regression coefficient for BONS was -28.287.

During the entire period of study, the regression coefficient 'b_6' was turned out to be significant for BOANA, BNPP, CBNA, DBAG, Mb PSC and BONS (negative). In case of BONS, it magnified that one unit increase in establishment expenses shall decrease the total income by 24.993 units, keeping, non-interest income, number of employees and number of branches constant at their arithmetic mean levels.

The reason for the significant but negative regression coefficient for foreign banks could be assigned to branch expansion and hiring more employees with low output.

The regression coefficient for number of employees '(b_7)' was turned out to be significant for BOB&K B.S.C. in the pre-reform period and DBAG, OIB S.A.O.G. and SGB in the post-reform period. During the entire period of study, the regression coefficient was significant for; ADCBL, BOANA, BOB&K B.S.C., DBAG, and OIBS.A.O.G. SGB, SCBL (negative) BONS and HSBCL.

The significant coefficient for foreign banks magnified the respective contribution of explanatory variable to the total income.

The regression coefficient for number of branches '(b_8)' was turned out to be significant for, AEBC and SGB in the pre-reform period magnifying that one unit increase in 'b_8' shall increase the total income by 152.375 units for AEBC and by 34.623 units for SGB, keeping, non-interest income, establishment expenses and number of employees constant at their arithmetic mean levels.

However in the post-reform period, regression coefficient was significant for AEBC, DBAG, and SCBL. During the entire period of study, it was turned out to be significant for AEBC, DBAG, and SCBL. In the post-reform period, the regression coefficient for AEBC magnified that one unit increase in number of branches shall increase the total income by 47.649 units, keeping, non-interest income, establishment expenses and number of employees constant at their arithmetic mean levels.

The reason for the regression coefficient to be significant could be attributed to branch expansion by the foreign banks in the post-reform period and having their branches more profitable as compared to public sector banks and advantage of prime location of banks.

The regression line has given a good fit to the observed data, since this line explained almost more than 80 percent of the total variation of the 'Y' values around their mean in the pre, post and whole study period. The remaining variation was unaccounted for by the regression line and was attributed to the factors included in the disturbance variable 'u'. R^2 was found significant for all banks.

The Return to Scale (RTS) exhibited that in the pre-reform period, except BNPP, SGB, BOTML and HSBCL, all foreign banks were operating on Increasing Return to Scale (IRS). But in the post reform period, some of the foreign banks were operating on Decreasing Return to Scale and banks like BOANA and BOTML exhibited negative scale. During the entire period of study, BNPP, Mb PSC and SBL, did operate on negative return.

All explanatory variables taken together, the regression coefficients were significant for DBAG, during the entire period of study. However, in most of the banks all regressors, either individually or collectively, had explained significant impact on regressand.

DEGREE AND DIRECTION OF RELATIONSHIP AMONG DIFFERENT EXPLANATORY VARIABLES

Bi-variate correlation analysis was conducted to measure the magnitude and direction of the relationship between different explanatory variables. The interdependence among variables is a common characteristic of most multivariate techniques and the correlation matrix is used to display correlation coefficients between these different variables. The matrices form the basis for computation and understanding of the nature of relationships in multiple regression and other similar techniques. The purpose for conducting the bi-variate correlation analysis was to identify the important explanatory variables which

had higher significant association with each other and secondary objective was to spot the presence of multicollinearity between different explanatory variables. The following variables were considered for the purpose of conducting a bi-variate correlation analysis:

Y= Total Income
X_1= Total Assets
X_2= Net-Interest Margin
X_3= Total Expenditure
X_4= Total Business
X_5= Non-Interest Income
X_6= Establishment Expenses
X_7= Number of Employees
X_8= Number of Branches
X_9= Net Worth.

The bi-variate correlation analysis for foreign banks has been exhibited in tables 1.1.7, 1.1.8 and 1.1.9. In the pre-reform period, all variables had shown significant association, except X_3 with X_5 and X_8 and $X_5$with X_7, and X_7 with X_8 and X_9. But in the post-reform period and during the entire study period, each variable had shown significant association with each other. The explanatory variables were significant at 0.01 percent probability level.

TABLE 1.1.7: BIVARIATE CORRELATIONS COEFFICIENT MATRIX FOR FOREIGN BANKS (1987-1995)

	Y	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8	x_9
Y	1									
x_1	.975**	1								
x_2	.976**	.975**	1							
x_3	.923**	.907**	.901**	1						
x_4	.977**	.987**	.991**	.872*	1					
x_5	.815*	.745*	.771*	0.542	.809*	1				
x_6	.936**	.951**	.977**	.802*	.983**	.813*	1			
x_7	.848**	.895**	.786*	.813*	.826*	0.604	.764*	1		
x_8	.750*	.798*	.818*	0.537	.857**	.772*	.884**	0.55	1	
x_9	.881**	.896**	.955**	0.752	.949**	.767*	.977**	0.63	.914**	1

**. Correlation is Significant at the 0.01 level (2-tailed).
*. Correlation is Significant at the 0.05 level (2-tailed).

TABLE 1.1.8: BIVARIATE CORRELATIONS COEFFICIENT MATRIX FOR FOREIGN BANKS (1996-2010)

	Y	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8	x_9
Y	1									
x_1	.992**	1								
x_2	.991**	.997**	1							
x_3	.999**	.989**	.988**	1						
x_4	.985**	.996**	.991**	.982**	1					
x_5	.995**	.986**	.984**	.991**	.972**	1				
x_6	.989**	.995**	.998**	.985**	.992**	.981**	1			
x_7	.954**	.967**	.965**	.946**	.973**	.946**	.973**	1		
x_8	.907**	.934**	.910**	.901**	.952**	.892**	.913**	.931**	1	
x_9	.978**	.990**	.995**	.976**	.982**	.972**	.991**	.949**	.895**	1

**. Correlation is Significant at the 0.01 level (2-tailed).

TABLE 1.1.9: BIVARIATE CORRELATIONS COEFFICIENT MATRIX FOR FOREIGN BANKS (1987-2010)

	Y	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8	x_9
Y	1									
x_1	.992**	1								
x_2	.991**	.997**	1							
x_3	.999**	.989**	.988**	1						
x_4	.985**	.996**	.991**	.982**	1					
x_5	.995**	.986**	.984**	.991**	.972**	1				
x_6	.989**	.995**	.998**	.985**	.992**	.981**	1			
x_7	.954**	.967**	.965**	.946**	.973**	.946**	.973**	1		
x_8	.907**	.934**	.910**	.901**	.952**	.892**	.913**	.931**	1	
x_9	.978**	.990**	.995**	.976**	.982**	.972**	.991**	.949**	.895**	1

**. Correlation is Significant at the 0.01 level (2-tailed).

The explanatory variables had shown significant association as high as above 0.80. It led to the confirmation of multicollinearity among the regressors.

INFLUENCE OF REGRESSORS ON REGRESSAND

Once the linear relationships among explanatory variables were confirmed through correlation coefficients, the next step was to conduct step-wise multiple regression analysis to explain the variations in profitability by the different combination of variables for foreign banks. Intuitively, when any two explanatory variables are changing in nearly in the same way, it becomes extremely difficult to establish the influence of each one regressor on Y separately.

The following variables were taken to estimate the effect of multicollinearity among the different explanatory variables on the explained variable:

Y= Total Income
X_1= Total Assets
X_2= Net-Interest Margin
X_3= Total Expenditure
X_4= Total Business
X_5= Non-Interest Income
X_6= Establishment Expenses
X_7= Number of Employees
X_8= Number of Branches
X_9= Net Worth.

The results of multiple regression analysis are presented in tables 1.1.10, 1.1.11 and 1.1.12 in the pre-reform period, post-reform period and entire study period. In the pre-reform period, the numbers of observations were available for seven years, leading to complete loss for degrees of freedom with the undertaken regressors.

TABLE 1.1.10: LINEAR PRODUCTION FUNCTION FOR FOREIGN BANKS (GROUP): STEP-WISE ANALYSIS (1987-1995)

Intercept	b_1	b_2	b_3	b_4	b_5	b_6	b_7	b_8	b_9	R^2	d.f.	F-Value	Adjusted R^2
-95.733	0.049	0.405	0.417	-0.021	1.51	0.068				0.999	1	459.136	0.993
(162.776)	***(0.037)***	***(0.907)***	***(0.107)***	***(0.060)***	***(0.228)***	***(3.861)***							
-93.394	0.049	0.413	0.416*	-0.02	1.509**					0.999	2	1101.579	0.996
(67.634)	***(0.026)***	***(0.569)***	***(0.055)***	***(0.040)***	***(0.151)***								
195.357	-0.104	-2.58	0.541	0.247						0.981	3	39.867	0.956
(356.067)	***(0.121)***	***(2.818)***	***(0.314)***	***(0.170)***									
-22.557	0.054	1.25	0.164							0.968	4	41.103	0.944
(364.699)	***(0.060)***	***(1.114)***	***(0.200)***										
-58.126	0.068	1.418								0.963	5	65.592	0.948
(350.121)	***(0.055)***	***(1.059)***											
-412.178	0.141**									0.950	6	114.288	0.942
(244.188)	***(0.013)***												

***.significant at the 0.01 probability level (2 tailed).*

**.significant at the 0.05 probability level (2 tailed).*

Y=total income,b_1=total assets,b_2=net-interest margin,b_3=total expenditure,b_4=total business,
b_5=non-interest income, b_6=establishment expenses,b_7=number of employees,b_8=number of branches,b_9=net worth.

TABLE 1.1.11: LINEAR PRODUCTION FUNCTION FOR FOREIGN BANKS (GROUP): STEP-WISE ANALYSIS (1996-2010)

Intercept	b_1	b_2	b_3	b_4	b_5	b_6	b_7	b_8	b_9	R^2	d.f.	F-Value	Adjusted R^2
800.959	-0.027	-0.499	0.652**	0.01	1.268**	3.970*	-0.09	8.278	0.022	0.999	5	7186.167	0.997
(673.879)	***(0.016)***	***(0.354)***	***(0.134)***	***(0.014)***	***(0.187)***	***(1.282)***	***(0.043)***	***(6.313)***	***(0.041)***				
888.787	-0.024	-0.38	0.635**	0.012	1.249**	3.651*	-0.089	6.376		0.999	6	9176.218	0.997
(613.456)	***(0.015)***	***(0.257)***	***(0.122)***	***(0.013)***	***(0.172)***	***(1.066)***	***(0.040)***	***(4.895)***					
1174.884	-0.017	-0.475	0.595**	0.018	1.264**	3.089*	-0.064			0.999	7	9537.999	0.998
(600.595)	***(0.041)***	***(0.259)***	***(0.124)***	***(0.012)***	***(0.180)***	***(1.021)***	***(0.037)***						
413.999	-0.015	-0.356	0.718**	0.015	1.057**	2.202				0.999	8	8991.395	0.998
(446.503)	***(0.016)***	***(0.277)***	***(0.113)***	***(0.013)***	***(0.147)***	***(0.978)***							
-402.952	-0.044**	0.192	0.881**	0.041**	1.052**					0.999	9	7426.760	0.998
(313.907)	***(0.011)***	***(0.158)***	***(0.104)***	***(0.008)***	***(0.178)***								
-1375.381	-0.015	-0.199	1.330**	0.023						0.999	10	2108.987	0.998
(560.754)	***(0.022)***	***(0.302)***	***(0.149)***	***(0.016)***									
-701.257	0.011	-0.153	1.172**							0.998	11	2571.693	0.997
(313.700)	***(0.011)***	***(0.314)***	***(0.104)***										
2107.491	0.038	1.116								0.982	12	327.833	0.979
(651.742)	***(0.036)***	***(0.998)***											
1803.487	0.078**									0.980	13	641.999	0.978
(598.084)	***(0.003)***												

***.significant at the 0.01 probability level (2 tailed).*

**.significant at the 0.05 probability level (2 tailed).*

Y=total income,b_1=total assets,b_2=net-interest margin,b_3=total expenditure,b_4=total business,
b_5=non-interest income, b_6=establishment expenses,b_7=number of employees,b_8=number of branches,b_9=net worth.

TABLE 1.1.12: LINEAR PRODUCTION FUNCTION FOR FOREIGN BANKS (GROUP): STEP-WISE ANALYSIS (1987-2010)

Intercept	b_1	b_2	b_3	b_4	b_5	b_6	b_7	b_8	b_9	R^2	d.f.	F-Value	Adjusted R^2
581.941	-0.039**	-0.151	0.694**	0.032**	1.305**	2.270**	-0.079**	2.903	-0.004	0.999	13	10699.939	0.998
(356.900)	***(0.010)***	***(0.250)***	***(0.059)***	***(0.009)***	***(0.121)***	***(0.742)***	***(0.035)***	***(5.417)***	***(0.037)***				
560.928	-0.039**	-0.172	0.698**	0.032**	1.308**	2.306**	-0.079*	3.194		0.999	14	12948.238	0.998
(302.370)	***(0.009)***	***(0.183)***	***(0.047)***	***(0.008)***	***(0.115)***	***(0.657)***	***(0.033)***	***(4.704)***					
684.696	-0.036**	-0.226	0.684**	0.036**	1.312**	2.021**	-0.067**			0.999	15	15349.509	0.998
(236.866)	***(0.007)***	***(0.162)***	***(0.042)***	***(0.006)***	***(0.112)***	***(0.497)***	***(0.028)***						
147.911	-0.031**	-0.176	0.728**	0.029**	1.199**	1.521**				0.999	16	13880.523	0.998
(80.531)	***(0.008)***	***(0.182)***	***(0.042)***	***(0.006)***	***(0.116)***	***(0.511)***							
75.488	-0.038**	0.26	0.698**	0.037**	1.288**					0.999	17	11388.611	0.999
(92.836)	***(0.009)***	***(0.131)***	***(0.050)***	***(0.006)***	***(0.135)***								
-226.982	0.019	-0.007	1.010**	-0.004						0.998	18	2368.759	0.998
(213.731)	***(0.018)***	***(0.313)***	***(0.092)***	***(0.011)***									
-265.315	0.014	0.02	1.017**							0.998	19	3309.122	0.998
(182.029)	***(0.011)***	***(0.297)***	***(0.088)***										
1185.882	0.058	0.635								0.984	20	638.552	0.986
(365.913)	***(0.029)***	***(0.810)***											
1117.402	0.080**									0.984	21	1300.309	0.987
(352.076)	***(0.002)***												

***.significant at the 0.01 probability level (2 tailed).*

**.significant at the 0.05 probability level (2 tailed).*

Y=total income,b_1=total assets,b_2=net-interest margin,b_3=total expenditure,b_4=total business,
b_5=non-interest income, b_6=establishment expenses,b_7=number of employees,b_8=number of branches,b_9=net worth.

Therefore, the last three regressors were kept outside the analysis. The analysis revealed that, total assets '(X_1)' entered in the first step, explained 94.2 percent variation in banks profitability, with significant regression coefficient of 0.141. It magnified that one unit increase in X_1 shall increase the total income by 0.141 units keeping constant the rest of regressors at their arithmetic mean level same.

In the second step, the introduction of '(X_2)' had improved the R^2. Similarly in the third and fourth step, the introduction of X_3 and X_4 had left the regression coefficient insignificant but R^2 had shown improving trend. The high intercorrelation of X_1, X_2, X_3 and X_4 did not affect the stability or significance of $\hat{b}$ i's in the fifth step, the introduction of non-interest income '(X_5)' had explained 99.3 percent variation and regression coefficient was turned out significant. In the last step, the introduction of establishment expenses '(X_6)' had kept the regression coefficients almost stable.

In the post-reform period, total assets '(X_1)' entered in the first step, explained 97.8 percent variation in banks profitability, with significant regression coefficient of 0.078. In the second step, the introduction of net-interest margin '(X_2)' kept almost b_1 stable and explained 97.9 percent variation. In the third step, total expenditure '(X_3)'entered in the regression model had explained 99.7 percent variation with significant regression coefficient of 1.172. In the fourth step total Business '(X_4)' entered in the regression model had not affected the significance of b_3 and shown improvement in R^2. In the fifth step, non-interest Income '(X_5)' entered in the model had explained 99.8 percent variation in total income and significant b_1 (negative), b_3, b_4 and b_5. In the sixth step, the significance of b_3 and b_5 was stable and R^2 at 0.998. Similarly, in the seventh, eighth and ninth step, some of the regression coefficients were significant and R^2 was either improved or at the same level

During the entire period of study, total assets '(X_1)' entered in the first step, explained 98.7 percent variation in total income with significant regression coefficient of 0.080. In the second step entering of net-interest margin '(X_2)' kept regression coefficients insignificant but stable and R^2 at 0.986. In the third step, total Expenditure '(X_3)' entered in the regression model had explained 99.8 percent variation with significant regression coefficient of 1.017. It magnified that one unit increase in total expenditure shall increase the total income by 1.017 units, keeping, constant other regressors at their arithmetic mean level same. In the fourth step, total Business '(X_4)' entered in the model had kept b_3 significant and explained 99.8 percent variation in total income. In the fifth step, the regression coefficients b_1 (negative), b_3 , b_4 b_5 were turned out to be significant and explained almost 99.9 percent variation in total income. In the sixth step, regression coefficients b_1 (negative), b_3 , b_4 ,b_5 and b_6 were turned out to be significant and explained 99.8 percent variation in total income because of regressors. In the seventh, eighth and ninth steps, almost 99.8 percent variation in total income were on account of undertaken regressors.

To sum up, it was not possible to drop any of the variable from the study because of significance of R^2. Therefore, no variable was considered superfluous variable i.e.no variable could be excluded from the list of explanatory variables. Despite the high degree of collinearity of all regressors, the standard errors were not enough large. The regression with all explanatory variables showed that the effect of multicollinearity was not a serious. The non-interest income had been a major source of income because of significant regression coefficients in the post-reform period and for the entire study period regressed with different regressors.

The best fitted function in the different period could be shown as

In the pre-reform period (1980-1995)

$Y=-95.733+0.049X_1+0.405X_2+0.417X_3-.021X_4+1.51X_5+0.068X_6$

In the post-reform period (1996-2010)

$Y=800.959-0.027X_1-0.499X_2+0.652X_3-0.010X_4+1.268X_5+3.970X_6-0.09X_7+8.278X_8+0.022X_9$

For the whole study period (1980-2010)

$Y=581.941-0.039X_1-0.151X_2+0.694X_3+0.032X_4+1.305X_5+2.270X_6-0.079X_7+2.903X_8-0.004X_9$

The regression line explained more than 95 percent variation in pre, post and entire study period. Only small percent of variation of 5 percent was unaccounted and was due to disturbance variable 'u'.

CONCLUSION

To sum up, under growth and efficiency criteria, all explanatory variables had shown significant impact on the performance of foreign banks. More than 90 percent of variation in total income was on account of undertaken explanatory variables and a very little proportion of variation could be attributed to disturbance variable.

The Return to Scale at first stage of growth criteria had shown that all banks were operating on either Increasing Return to Scale (IRS) or Decreasing Return to Scale (DRS) in the pre, post and entire study period. But in the second stage of efficiency criteria some of the banks showed negative returns which was because of undertaken regressors in the analysis. As most of the foreign banks were located in the prime location and while making their branch expansion had returned negative output in the starting phase. Similarly, staff strength did not provide adequate output.

The correlation analysis had revealed that, all variables were highly intercorrelated and pointed multicollinearity. The analysis of multicollinearity revealed that none of the explanatory variable was found superfluous. Therefore, no variable was dropped out from the analysis. It further confirmed the impact of banking sector reforms which was well reflected through the undertaken variables.

REFERENCES

1. Aggarwal, R.N. (1991), "Productivity Growth and Economies of Scale in Public Sector Banks in India: 1969-1986", Productivity, Vol.32, July-September, pp.329-336.
2. Arora , Sangeeta and Shubpreet Kaur (2008), "Diversification in Banking Sector in India: Determinants of Financial Performance", The Indian Journal of Commerce, Vol.61, No.3, July-September, 2008.
3. C.Ravi, Pramodh, V.and Nagabhushanam.T. (2008), "Indian Banks Productivity Ranking Via Data Envelopment Analysis and Fuzzy Multi-Attribute Decision – Making Hybrid", International Journal of Information and Decision Sciences, Vol.1.No.I, 2008.
4. Cooper, W.W., L.M Seiford and K. Tone (2000), "Data Envelopment Analysis- Comprehensive Text with Models, Applications, References and DEA- Solver Software, Kluwer Academic Publisher, Boston.
5. Financial Express (2008), "India's Best Banks", p.42.
6. Goyal, Ritu and Rajinder Kaur (2008), "Performance of New Private Sector Banks in India", The Indian Journal of Commerce, Vol.61, No.3, July-September, pp.1-12.
7. Gupta , R. K. and Sumeet Kaur Sibal (2008), "A Camel Model Analysis of Private Sector Banks in India", Gyan Management, Vol.2.Issue 1, Jan-June, 2008.
8. Koutsoyiannis. A (2003), "Theory of Econometrics: An Introductory Exposition of Econometrics Methods", Palgrave, pp.233-253.
9. Pal, Karam and Puja Goyal (2008), "Productivity –Based Comparative Analysis of Public, Private and Foreign Banks", The Indian Journal of Commerce, Vol.61, No.3, July-September, pp.22-35.
10. Robert(1993), " Profitability in Public Sector Banks in India", Ph.D. Thesis, Department of Commerce, University of Madras, Chennai, Finance India,Vol.VIII,No.3,September, pp.705-711.
11. Sinha, Ram Pratap and Biiswajit Chatterjee (2008), "Fund -Based Activity of Indian Commercial Banks: A Malamquist Approach", Indian Economic Review, Vol.XXXXIII, No.1, 2008, pp.83-102.
12. Subrahmanyam, G. (1984), "An Approach to Interbank Productivity Comparisons", Prajnan, October-December, pp. 381-392.
13. Subrahmanyam, G. (1993), "Productivity Growth in India's Public Sector Banks: 1970-1989", Journal of Quantitative Economics, Vol. 9, No.2, July, pp.209-223.
14. Subrahmanyam, G. (1995), "A Non –Structural Test of Competition in Indian Banking", The Indian Economic Journal, Vol.43, No.1, pp. 26-34.
15. Subrahmanyam, G. and S.B. Swamy (1994), "Production efficiency Differences Between Large and Small Banks", Artha Vijnana, September, Vol.36, No.3.pp.183-193.
16. Verma, Satish and Rohit Saini (2010-2011), "Structure, Conduct and Performance of Commercial Banks in India", Prajnan, Vol. XXXIX, No.2, July-September.

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce and Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue as well as on the journal as a whole, on our E-mail i.e. **infoijrcm@gmail.com** for further improvements in the interest of research.

If you have any queries please feel free to contact us on our E-mail **infoijrcm@gmail.com**.

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-

Co-ordinator

ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

Our Other Journals