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OF BUSINESS**

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Indirapuram, Ghaziabad

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# **O J A S**

## **EXPANDING KNOWLEDGE HORIZON**

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The journal welcomes innovative research based papers, perspectives, case studies and book reviews in functional areas of management. All submissions are reviewed in terms of their contribution to literature, research, empirical evidence and appropriate methodology. For any further query, please contact

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## From Editor-in-Chief

I am honoured to be the new editor-in-chief of OJAS, an International Journal of research in management dedicated to dissemination of knowledge. I would like to thank the Management and Director for entrusting me with this opportunity. The current issue focuses on multifarious and contemporary issues in different areas of business and bring to fore new perspectives to take the nation and society forward.

Geetika Shukla, Devesh Gupta and Abhishek Maheshwari in their research paper have deliberated on role of financial and spearing leverage in TCS and Infosys. Dalip Kumar and Anjani Jha have discussed how financial inclusion and rural development are interlinked. Prabal Chakraborty, Anupam Munshi and Naresh Gupta have deliberated on the role and scope of varied inputs in inventory management. Rakesh Verma and Mukesh Kumar Jain have discussed about financial literacy in banking services and Shalu Aggarwal and Meera Bamba discussed about the hurdles that India faces to enhance financial inclusion index. In a similar vein Ravi Gupta and H J Ghosh Roy have deliberated on how financial sector reforms unleashed by the government will bring about a change in financial inclusion. Shipra Singh, S Agarwal, H Mehra and Bhavya Dua have too talked about financial literacy and its significance for development. Sonali Yadav in her research has deliberated on the inter-relationship between Returns on BSE and FII in India. The paper authored by Annirudha Ghosh and Surbhi Jain is a conceptual study on accelerating financial inclusion in India. Sushil K Gupta and Amit Sinha have carried out an empirical investigation on the effectiveness of Pradhan Mantri Jan Dhan Yojna in Bareilly city. Nidhi Sinha in her seminal paper has demonstrated how clustering algorithm can be used for effective segmentation in hyper competitive markets. Radha Yadav and Riya Gangwar have written a topical article on Business Diplomacy which is an important ingredient for transcendental leadership.

I would like to thank the revered members of the Editorial Advisory Board for their valuable inputs. I would like to thank the editorial team for their painstaking efforts in bring out this special issue. I would like to thank my colleague and Executive Editor Dr. Anindita for her efforts in bringing up this issue.

The ultimate goal is to see OJAS become a preferred journal by researchers and practitioners to acquire and disseminate essential ideas, theories, knowledge, and practices in management. I look forward to working with all of you to receive high-quality papers as an author and constructive feedback.

Happy Reading

**Editor-in-chief.**

# *Our Inspiration*



**Dr. Rajaram Jaipuria**  
(1934-2015)  
**Founder, Jaipuria School of Business**

“When one performs his prescribed duty only because it ought to be done, and renounces all material association and all attachment to the fruit, his renunciation is said to be in the mode of goodness”...

Bhagwad Gita

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# Leverage Analysis of Tata Consultancy Services and Infosys Limited

Geetika Shukla\*  
Devesh Gupta\*\*  
Abhishek Maheshwari\*\*\*

## Abstract

Leverage, as a business term, refers to debt or to the borrowing of funds to finance the purchase of a company's assets. It increases the company's return on equity. If debt financing is used rather than equity financing, then the owner's equity is not diluted by issuing more shares of stock. On the other side, using debt, or leverage, increases the company's risk of bankruptcy. Leverage is called double edged sword. There are three types of leverages: operating leverage, financial leverage and combined leverage.

This research paper attempts to make an analytical study of theoretical approaches and practical application of financial leverage, operating leverage and earnings per share of Tata Consultancy Services and Infosys Limited with data for the period of 2012 to 2016. For the purpose of analysis, ratio techniques and T-test have been used through Microsoft Office Excel Sheet. The result of the study indicates that there is a relationship between degree of financial leverage, degree of operating leverage and degree of combined leverage at 5% and 1% level of significance.

Keywords: Financial Leverage, Trading on Equity, Earnings per Share.

## Concept of Leverage

The term leverage, in general, refers to a relationship between two interrelated variables. With reference to a business firm, these variables may be costs, output, sales revenue, EBIT, Earnings per Share (EPS) etc. In financial analysis, the leverage reflects the responsiveness or influence of one financial variable over some other financial variable. It helps in understanding the relationship between any two variables. In the leverage analysis, the emphasis is on the measurement of the relationship of two variables rather than on measuring these variables. However, the two variables, for which the relationship is established and measured, should be interrelated, otherwise, the leverage study may not have any useful purpose to serve.

The leverage may be defined as the percentage change in one variable divided by the percentage change in some other variable or variables. Impliedly, the numerator is the dependent variable and the denominator is the independent variable. The leverage analysis thus, reflects as to how responsive is the dependent variable to a change in the independent variable.

## Operating Leverage

The operating leverage measures the relationship between the sales revenue and the EBIT or in other words, it measures the effect of change in sales revenue on the level of EBIT. Operating leverage refers to the percentage of fixed costs that a company

has. Stated another way, operating leverage is the ratio of fixed costs to variable costs. If a business firm has a lot of fixed costs as compared to variable costs, then the firm is said to have high operating leverage. These firms use a lot of fixed costs in their business and are capital intensive firms.

It means that if a firm has high operating leverage, a small change in sales volume results in a large change in EBIT or ROI, return on invested capital. In other words, firms with high operating leverage are very sensitive to changes in sales and it affects their bottom line quickly.

If a business firm has high fixed costs and their costs do not decline as demand declines, then the firm has high operating leverage which means high business risk. Business risk is just one portion of the risk that determines a business firm's future return on equity. It is the risk inherent in the firm's operations. It rises from economic uncertainty which leads to uncertainty about future profits and capital requirements.

## Financial Leverage

The Financial Leverage measures the relationship between the EBIT and EPS and it reflects the effect of change in EBIT on the level of EPS. The Financial Leverage measures the responsiveness of the EPS to a change in EBIT and is defined as the percentage change in EPS divided by the percentage change in EBIT. Financial Leverage refers to the use of debt to acquire additional assets.

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Financial Leverage is also known as trading on equity. The greater the amount of debt, the greater the financial leverage.

Financial Leverage refers to the amount of debt in the capital structure of the business firm. If you can envision a balance sheet, financial leverage refers to the right-hand side of the balance sheet. Financial Leverage refers to how the firm will pay for it or how the operation will be financed.

## Combined Leverage

The Combined Leverage is not a distinct type of leverage analysis; rather it is a product of the Operating Leverage and the Finance Leverage. The Combined Leverage may be defined as the percentage change in EPS for a given percentage change in the sales level.

Combined, or total, leverage is the total amount of risk facing a business firm. It can also be looked at in another way. It is the total amount of leverage that we can use to magnify the returns from our business. Operating leverage magnifies the return from our plant and equipment or fixed assets. Financial leverage magnifies

the returns from our debt financing. Combined leverage is the total of these two types of leverage or the total magnification of returns.

## Objectives of Study

- To study the relationship among Operating Leverage, Financial Leverage and Combined Leverage (total average) of sample firms.
- To identify the ideal combination of leverages in firms.

## Methodology

- Two well known Information Technology firms are taken as sample for research analysis. Five years data is used of Tata Consultancy Services and Infosys Limited.
- Data collected and compiled is analyzed and interpreted through application of financial equations, ratios and presented in the tables.
- The data for the study has been collected from secondary sources i.e. from financial reports of firms.

## Data Analysis

Table 1

Leverage Analysis of Tata Consultancy Services (Rs. In Crores)					
	2016	2015	2014	2013	2012
<b>Sales</b>	85864	73578	64673	48426	38104
<b>Variable Costs</b>	12955	11246	9652	8135	6596
<b>Contribution</b>	72909	62332	55021	40291	31508
<b>Fixed Costs</b>	47518	42711	34569	26788	21269
<b>EBIT</b>	25391	19621	20452	13503	10239
<b>Interest</b>	14	80	23	31	16
<b>EBT</b>	25377	19541	20429	13472	10223
<b>Tax</b>	6234	5293	5070	2917	2390
<b>EAT</b>	19143	14248	15359	10555	7833
<b>OL</b>	2.871451	3.1768	2.69025	2.983855	3.077254
<b>FL</b>	1.000552	1.004094	1.001126	1.002301	1.001565
<b>CL</b>	2.873035	3.189806	2.693279	2.990721	3.08207

*Data Collected and Compiled*

The above table reveals that the contribution of the company was fluctuated positively during the study period. The EBIT of the company also increased gradually during the study period. The

operating leverage of the company was highest (3.18 times) in the year 2015 and it was lowest (2.69 times) in the year 2014.

Table 2

Leverage Analysis of Infosys Limited					
	(Rs. In Crores)				
	2016	2015	2014	2013	2012
<b>Sales</b>	53983	47300	44341	36765	31254
<b>Variable Costs</b>	8039	6338	5542	4353	4534
<b>Contribution</b>	45944	40962	38799	32412	26720
<b>Fixed Costs</b>	31292	27905	27367	22352	17451
<b>EBIT</b>	14652	13057	11432	10060	9269
<b>Interest</b>	4	8	6	3	2
<b>EBT</b>	14648	13049	11426	10057	9267
<b>Tax</b>	4907	4634	3808	3241	3204
<b>EAT</b>	9741	8415	7618	6816	6063
<b>OL</b>	3.135681	3.137168	3.393894	3.221869	2.882727
<b>FL</b>	1.000273	1.000613	1.000525	1.000298	1.000216
<b>CL</b>	3.136537	3.139091	3.395677	3.22283	2.88335

*Data Collected and Compiled*

The above table reveals that the contribution of the company was fluctuated positively during the study period. The EBIT of the company also increased gradually during the study period. The

operating leverage of the company was highest (3.39 times) in the year 2014 and it was lowest (2.88 times) in the year 2012.

Table 3

Tata Consultancy Services			
Degree of Operating Leverage			
	% Change in EBIT	% Change in Sales	DOL
2012-13	31.88	27.09	1.18
2013-14	51.46	33.55	1.53
2014-15	-4.1	13.77	-0.3
2015-16	29.4	16.7	1.76



Table 4

Tata Consultancy Services			
Degree of Financial Leverage			
	% Change in EPS	% Change in EBIT	DFL
2012-13	16.54	31.88	0.52
2013-14	44.38	51.46	0.86
2014-15	4.4	-4.1	-1.07
2015-16	18.11	29.4	0.62

Table 5

Infosys Limited			
Degree of Operating Leverage			
	% Change in EBIT	% Change in Sales	DOL
2012-13	8.53	17.63	0.48
2013-14	13.64	20.61	0.66
2014-15	14.21	6.67	2.13
2015-16	12.22	14.13	0.86

Table 6

Infosys Limited			
Degree of Financial Leverage			
	% Change in EPS	% Change in EBIT	DFL
2012-13	7.63	8.53	0.89
2013-14	12.22	13.64	0.9
2014-15	-40.55	14.21	-2.85
2015-16	-35.12	12.22	-2.87

## Conclusion

The study was undertaken to analyze the leverage position of the Tata Consultancy Services Limited and Infosys Limited. From the study, it can be concluded that the overall financial and operating efficiency was satisfactory in both the companies. The researcher has found that these companies are suffering from certain weaknesses and has given some suggestions to overcome it. If the suggestions are implemented, they can increase profitability and overall performance. A high and a low operating and financial leverage both are very risky. The operating and financial positions of both the companies were improperly fluctuated. A firm must maintain a proper balance between the financial and operating leverage. These companies have to control fixed cost as well as variable cost to attain adequate profit.

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**APPENDIX – 1: Infosys's 5 Years Financial Summary**

Parameters	MAR'16 ( Cr.)	MAR'15 ( Cr.)	MAR'14 ( Cr.)	MAR'13 ( Cr.)	MAR'12 ( Cr.)
Operating Income	53,983.00	47,300.00	44,341.00	36,765.00	31,254.00
Less :Inter divisional transfers	0.00	0.00	0.00	0.00	0.00
Less: Excise	0.00	0.00	0.00	0.00	0.00
Net Sales	53,983.00	47,300.00	44,341.00	36,765.00	31,254.00
EXPENDITURE:					
Stock Adjustments	0.00	0.00	0.00	0.00	0.00
Raw Materials Consumed	0.00	0.00	0.00	0.00	0.00
Power & Fuel Cost	179.00	185.00	181.00	180.00	154.00
Employee Cost	28,206.00	25,115.00	24,350.00	19,932.00	15,473.00
Cost of Software developments	5,466.00	3,888.00	3,516.00	2,465.00	3,108.00
Operating Expenses	1,949.00	1,564.00	1,414.00	1,431.00	1,056.00
General and Administration Expenses	1,971.00	1,877.00	1,916.00	1,464.00	1,184.00
Selling and Marketing Expenses	178.00	94.00	77.00	151.00	130.00
Miscellaneous Expenses	267.00	607.00	354.00	126.00	86.00
Expenses Capitalised	0.00	0.00	0.00	0.00	0.00
Total Expenditure	38,216.00	33,330.00	31,808.00	25,749.00	21,191.00
<b>PBIDT (Excl OI)</b>	<b>15,767.00</b>	<b>13,970.00</b>	<b>12,533.00</b>	<b>11,016.00</b>	<b>10,063.00</b>
Other Income	3,009.00	3,337.00	2,576.00	2,217.00	1,829.00

<b>Operating Profit</b>	<b>18,776.00</b>	<b>17,307.00</b>	<b>15,109.00</b>	<b>13,233.00</b>	<b>11,892.00</b>
Interest	4.00	8.00	6.00	3.00	2.00
PBDT	18,772.00	17,299.00	15,103.00	13,230.00	11,890.00
Depreciation	1,115.00	913.00	1,101.00	956.00	794.00
Profit Before Taxation & Exceptional Items	17,657.00	16,386.00	14,002.00	12,274.00	11,096.00
Exceptional Income / Expenses	3,036.00	412.00	0.00	83.00	578.00
<b>Profit Before Tax</b>	<b>20,693.00</b>	<b>16,798.00</b>	<b>14,002.00</b>	<b>12,357.00</b>	<b>11,674.00</b>
Provision for Tax	4,907.00	4,634.00	3,808.00	3,241.00	3,204.00
<b>PAT</b>	<b>15,786.00</b>	<b>12,164.00</b>	<b>10,194.00</b>	<b>9,116.00</b>	<b>8,470.00</b>
Extraordinary Items	0.00	0.00	0.00	0.00	0.00
Adj to Profit After Tax	0.00	-42.00	69.00	0.00	-84.00
Profit Balance B/F	35,152.00	30,392.00	25,383.00	19,993.00	15,591.00
Appropriations	50,938.00	42,514.00	35,646.00	29,109.00	23,977.00
Equity Dividend (%)	485.00	1,190.00	1,260.00	840.00	940.00
Earnings Per Share (in ₹)	68.75	105.96	178.22	158.82	147.56
Book Value (in ₹)	248.91	418.69	735.87	628.21	518.42

**APPENDIX – 2: TCS's 5 Years Financial Summary**

Parameters	MAR'16 ( Cr.	MAR'15 ( Cr.	MAR'14 ( Cr.	MAR'13 ( Cr.	MAR'12 ( Cr.
Operating Income	85,864.71	73,582.15	64,676.08	48,426.96	38,104.48
Less :Inter divisional transfers	0.00	0.00	0.00	0.00	0.00
Less: Excise	0.86	4.09	3.15	0.82	0.25
Net Sales	85,863.85	73,578.06	64,672.93	48,426.14	38,104.23
EXPENDITURE:					
Stock Adjustments	0.38	0.15	-0.07	0.00	0.26
Raw Materials Consumed	39.09	64.62	39.77	25.02	11.78
Power & Fuel Cost	510.83	493.36	463.25	375.61	292.10
Employee Cost	42,527.27	38,255.22	30,782.84	23,899.59	18,898.77
Cost of Software developments	3,067.67	2,867.39	2,402.94	2,219.86	1,922.48
Operating Expenses	9,218.71	7,666.65	6,666.10	5,426.72	3,874.86
General and Administration Expenses	3,431.62	3,061.83	2,705.09	2,085.12	1,681.61
Selling and Marketing Expenses	0.00	0.00	0.00	35.07	20.08
Miscellaneous Expenses	119.07	153.74	79.41	52.88	474.29
Expenses Capitalised	0.00	0.00	0.00	0.00	0.00
Total Expenditure	58,914.64	52,562.96	43,139.33	34,119.87	27,176.23
<b>PBIDT (Excl OI)</b>	<b>26,949.21</b>	<b>21,015.10</b>	<b>21,533.60</b>	<b>14,306.27</b>	<b>10,928.00</b>
Other Income	3,740.20	4,479.83	3,114.83	2,230.39	3,142.90

<b>Operating Profit</b>	<b>30,689.41</b>	<b>25,494.93</b>	<b>24,648.43</b>	<b>16,536.66</b>	<b>14,070.90</b>
Interest	13.58	79.57	23.41	30.62	16.40
PBDT	30,675.83	25,415.36	24,625.02	16,506.04	14,054.50
Depreciation	1,559.19	1,393.77	1,080.55	802.86	688.17
Profit Before Taxation & Exceptional Items	29,116.64	24,021.59	23,544.47	15,703.18	13,366.33
Exceptional Income / Expenses	0.00	528.38	0.00	0.00	0.00
<b>Profit Before Tax</b>	<b>29,116.64</b>	<b>24,549.97</b>	<b>23,544.47</b>	<b>15,703.18</b>	<b>13,366.33</b>
Provision for Tax	6,233.94	5,293.01	5,069.55	2,916.84	2,390.35
<b>PAT</b>	<b>22,882.70</b>	<b>19,256.96</b>	<b>18,474.92</b>	<b>12,786.34</b>	<b>10,975.98</b>
Extraordinary Items	0.00	0.00	0.00	0.00	0.00
Adj to Profit After Tax	1,075.31	71.78	2,375.22	-103.00	0.00
Profit Balance B/F	35,779.06	36,420.45	24,602.85	18,235.20	14,069.20
Appropriations	59,737.07	55,749.19	45,452.99	30,918.54	25,045.18
Equity Dividend (%)	4,350.00	7,900.00	3,200.00	2,200.00	2,500.00
Earnings Per Share (in ₹)	116.13	98.32	94.18	65.23	55.97
Book Value (in ₹)	298.76	231.87	224.90	165.86	126.49

# Financial Inclusion and Digital India: Way to Agriculture and Rural Development

Dalip Kumar\*  
Anjani Kumar Jha\*\*

## OUTLINE

- Data Sources
- Introduction And Role of Financial Inclusion
- Financial Inclusion Rural Development
- Mobile Banking And Financial Inclusion
- Internet Banking Services
- Banks Provided Financial Services For Agriculture
- Digital India
- Benefits of Digitalization To Rural People
- Important Digital Payments Tools
- Percentage Distribution Of Outstanding Loan of Cultivator Household
- Percentage Share of Farmers Accounts
- Credit Flow to Agriculture
- Account Open in Pradhan Mantri Jan-dhan Yojana
- State-wise Distribution of Kisan Credit Card Issued in India
- Challenges of Financial Inclusion
- Government Initiatives and Way Forwards

## What is Financial Inclusion?

- Introduction
- ♦ The Reserve Bank of India has set up the Khan Commission in 2004 to look into financial inclusion
- ♦ Financial inclusion (FI) is the delivery of financial services at affordable costs to sections of disadvantaged and low-income group of society.
- ♦ FI as a proportion of Individuals and Firms that use in financial services.
- ♦ Financial inclusion does not mean credit for all at all costs.

## What is the Role of Financial inclusion in Agriculture and Rural Development ?

- a) Financial inclusion creating the habit to save money.
- b) Capital formation in the country is also expected to be boosted.
- c) Providing formal institutional credit to customers. Much weaker on access to credit.
- d) Poorer of the poor has been pushed for govt. subsidies.
- e) pushing for direct cash transfers to beneficiaries through their bank accounts.
- f) Saving and Insurance services are also increase among poor.

## Why Financial Inclusion Important for Rural India?

- Creating a platform for inculcating the habit to save MONEY
- Providing formal credit avenues
- Plug gaps and leaks in public subsidies and welfare programmes, direct cash transfers to beneficiaries bank accounts .
- Agricultural finance will help to farmers for increase their wealth and food production
- Agriculture finance helps clients provide market-based safety nets, and fund long-term investments to support sustainable economic growth.

## Mobile Banking Services

### Account Information

- Mini-statements and checking of account history
- Alerts on account activity or passing of set thresholds
- Monitoring of term deposits
- Access to loan statements
- Access to card statements
- Mutual Fund/equity statements
- Insurance policy management

### Transaction

- Fund transfers between the customer's linked accounts
- Paying third parties, including bill payments and third party fund transfers.
- Check Remote Deposit

### In Mobile Banking as a Product of Financial Inclusion

- The target group is low income urban and rural individuals/customers
- The Business Correspondent is the intermediary
- Account opening, cash in and cash out is possible
- Self service is possible for some activities only, e.g. remittances and balance enquiry
- All other facilities like Demat etc are not possible
- Security is either biometric or PIN

## Internet Banking Services Availability

- View Account Details/Balance; Download Account Statement; Request for Stop Cheque Payment; Request for Cheque book; Create Fixed Deposit; View Credit Card Details; Pay Credit Card Bills; Redeem Debit Card loyalty points; View Demat Account Details; Apply for IPO Online; View your Loan A/C Details; Mail Facility; Edit Personal Profile

Details; Register for e-statement; Register for SMS Banking; Transfer Fund to Own Bank Account; Transfer Fund to Other Bank Account; Transfer Fund to Visa Credit Card; Recharge Mobile; Request for Demand Draft; Shop online and pay using Internet Banking.

- Information for All
- Electronics Manufacturing
- IT for Jobs
- Early Harvest Programmes

### Banks Provided Financial services for Agriculture

- Lines of credit through both public and private financial institutions
- Appropriately structured partial credit guarantees
- Agricultural insurance for crop losses
- Development of leasing for agricultural equipment
- Setting up financial infrastructure (credit bureaus and collateral registries attending also to clients in the rural areas)
- Capacity building and technical assistance to both private and public banks/FIs
- Support of agricultural cooperatives
- Set up the right legal and regulatory environment to promote finance to the agricultural sector
- Assist in the development of innovative financing schemes such as warehouse receipt finance and value chain finance
- Assist in the development of commodity exchanges as a means in reducing market related risks

### Digital India

- The digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and Knowledge economy. launched on 1 July 2015 by PM Mr. Modi.

### Nine 'Pillars of the Digital India

- Broadband Highway
- Universal access to Internet
- Public Internet Access Programme
- e-Governance – Reforming Government through Technology
- e-Kranti - Electronic delivery of services

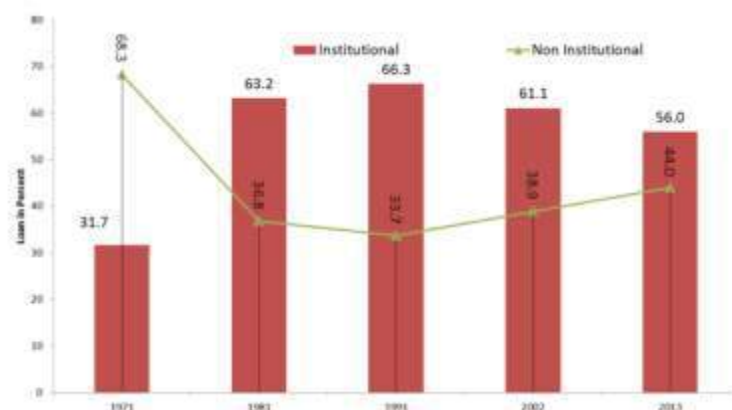
### Benefits of Digitalization to Rural People

- The Digitalisation of land records will reduce the litigation associated with land disputes.
- Digital land records will prevent corrupt officials to exploit poor farmers
- Computerized land records service centres will provide transparency
- Transparency helps in building a trust relationship with clients, which is a vital factor in land investment.
- Provide land information services to villages.
- Rural people are getting information and services through union digital centres (UDCs) about agriculture, health, education, admission, law, human rights, employment, marketing produce etc.
- land related documents, composing, printing, photo, scanning, emailing and talking to others using internet both at home and abroad and multimedia projector facilities are being provided from UDCs

### Important Digital Payments Tools

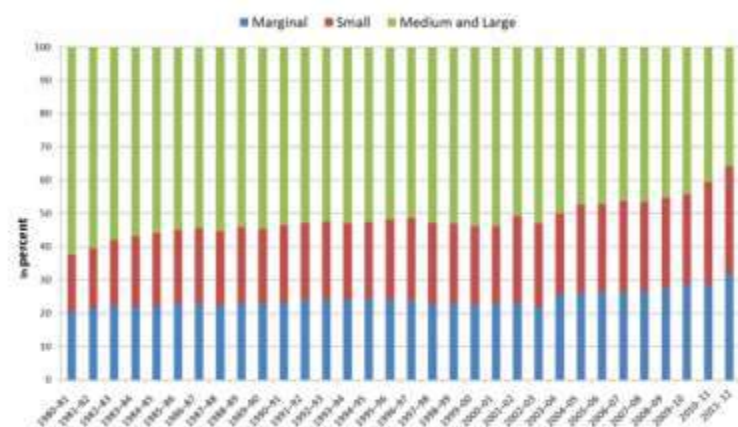
- National Electronic Fund Transfer (NEFT)
- Real time Gross settlement (RTGS)
- Immediate Payment Service (IMPS)
- Cheque Truncation System (CTS)
- National Automated Clearing House (NACH)
- Uniform Payment Interface (UPI)
- Unstructured Supplementary Service data (USSD)
- Debit And Credit Cards
- Prepaid Payment Installment (PPI)
- Mobile Banking
- Aadhar Enabled Payment System (AEPS)

Percentage Distribution of Outstanding Loan of Cultivator Household

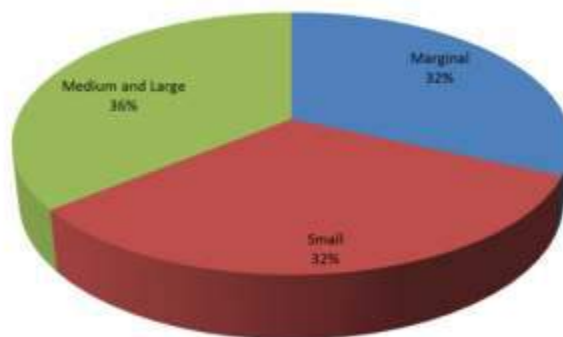




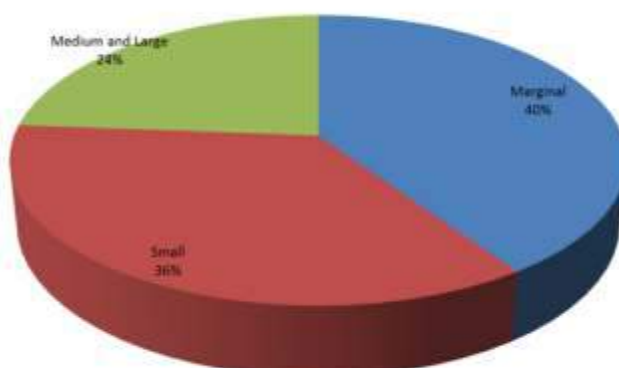
**Percentage Share of Farmers in Scheduled Commercial Banks**



**Percentage Share of Farmers Accounts in SCBs in 2012**



**Percentage Share of Farmers Amount in SCBs in 2012**



### Branches Expansion of SCBs

As on March	Number of			Estimated population*			Branches/		
	Branches			(in million)			100,000 population		
	Rural + Semi-urban	Urban + Metro-politan	Total	Rural + Semi-urban	Urban + Metro-politan	Total	Rural + Semi-urban	Urban + Metro-politan	Total
2001	44,905	20,713	65,618	851	177	1,028	5.3	11.7	6.4
2006	45,673	23,904	69,577	920	195	1,115	5	12.3	6.2
2010	53,086	31,072	85,158	980	211	1,191	5.4	15.2	7.2
2014	76,753	40,958	1,17,711	1,044	228	1,272	7.3	17.9	9.2
2015	82,358	43,716	1,26,074	1,061	233	1,294	7.8	18.7	9.7
Jun-15	82,794	43,910	1,26,704	1,065	235	1,300	7.8	18.7	9.7
*Population estimates are based on CAGR between Census 2001 and Census 2011 data									

### Growth in Individuals' Savings Bank Deposits Accounts with SCBs

Population Group	Number of Individual Saving Bank Deposits Accounts				Individual Saving Bank Deposits' Amount Outstanding			
	(million)				(₹. billion)			
	2006	2010	2015	CAGR (%)	2006	2010	2015	CAGR (%)
Rural	104	167	384	15.6	962	1,703	3,601	15.8
Semi-urban	85	136	320	15.9	1,124	2,155	4,470	16.6
Urban	68	97	186	11.8	1,246	2,381	4,541	15.5
Metropolitan	71	100	180	10.9	1,838	3,731	6,476	15
All India	329	500	1,070	14	5,170	9,970	19,088	15.6
CAGR is for all scheduled commercial banks (SCBs) including regional rural banks (RRBs) during 2006-15.								

Sources:-Report of the Committee on Medium -terms Path on Financial Inclusion RBI, December 2015

### Credit Growth of Scheduled Commercial Banks

Population Group	Credit accounts (million)				Credit outstanding (₹ billion)			
	2006	2010	2015	CAGR (%)	2006	2010	2015	CAGR (%)
Rural	29	36	50	6.4	1,261	2,493	5,982	18.9
Semi-urban	21	27	41	7.4	1,514	3,200	7,600	19.6
Urban	13	16	21	5.8	2,458	5,585	11,039	18.2
Metropolitan	23	40	33	4.1	9,905	22,174	44,170	18.1
All India	86	119	145	6	15,138	33,452	68,791	18.3
CAGR is for all scheduled commercial banks (SCBs), including Regional Rural Banks (RRBs), during 2006-15								

Sources:-Report of the Committee on Medium -terms Path on Financial Inclusion RBI, December 2015

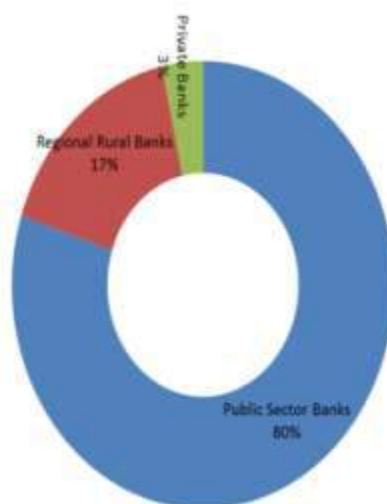
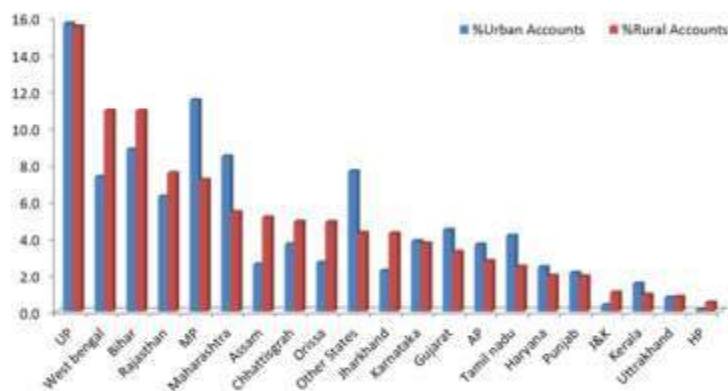
### Credit Flow to Agriculture (in Billion)

Year	Banking sector		Commercial banks	
	(includes RRBs and co-operative banks)			
	Target	Achievement	Target	Achievement
2010-11	3750	4683	2800	3459
2011-12	4750	5110	3550	3686
2012-13	5750	6074	4200	4325
2013-14	7000	7116	4750	5090
2014-15	8000	8406	5400	5997

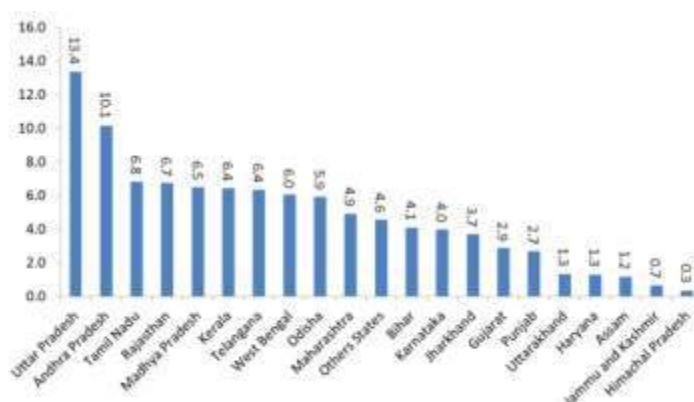
Sources:-Report of the Committee on Medium -terms Path on Financial Inclusion RBI, December 2015

**Account Open In Pradhan Mantri Jan-Dhan Yojana as on 08 March 2017**

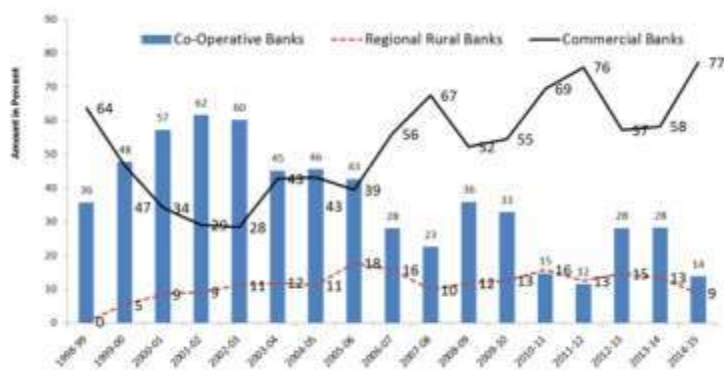
Bank Name	Rural	Urban	Total	Balance in Accounts	% of Zero balance account	% of total Accounts	% balance in Account
Public Sector Banks	12.27	10.16	22.43	50030.71	24.14	80.19	78.3
Regional Rural Banks	3.98	0.66	4.64	11635.99	20.81	16.59	18.2
Private Banks	0.54	0.36	0.9	2218.65	34.91	3.47	3.5
Total	16.79	11.18	27.97	63885.35	23.94	100.00	100.00

**Percentage of Total Account Open in Pradhan Mantri Jan - Dhan Yojana (As on 08/03/2017)****State wise Rural-Urban Distribution of Accounts in Pradhan Mantri Jan - Dhan Yojana**

### State-wise Distribution of Kisan Credit Card Issued in India(Nov,2015)



### Distribution Trends of Amounts for Kisan Credit Cards By Agencies in India 1999-2014



### Government Strategy

- Increase financial inclusion in the agricultural/rural sector by bringing more rural people into the formal financial system
- Provide funding to increase investments in agriculture to raise productivity, improve quality of agricultural products, and promote rural entrepreneurship for small Agribusinesses

### Advantages of Financial Inclusion

- Extending formal banking system among underprivileged in rural area
- Equipping poor with the confidence to make informed financial decisions.
- It provides an avenue for bringing the small savings of the poor
- It promotes financial literacy of the rural population and guides them to avoid the expensive and unreliable financial services.
- In the situation of economic crisis, the rural economy can be a support system to stabilize the financial system.

### Challenges of Financial Inclusion

#### Demand Side Challenges:

1. Low literacy levels/Low level of Financial illiteracy
2. Lack of awareness about financial products
3. Irregular and uncertainties income/ not enough money
4. Lack of trust by the unbanked rural people
5. Inadequate ICT Infrastructure/ services

#### Supply Side Challenges:

1. Non-availability of sufficient branches in rural area / long distance
2. High rules and regulations, documentation/ paperwork and high bank charges
3. Limited number and types of financial service providers
4. Absence of legal identification proof
5. Inadequate qualities in service

### Way Forwards

- Mobile technology provides the way forward for inclusion.
- Installing more ATMs in rural and semi-urban centers
- simple registration process for customers to seed their mobile number for alerts as well as financial services
- Development of a multi-lingual mobile application for customers who use non smart phones
- Financial Inclusion and Financial Literacy
- RBI co-ordinate with the Telecom Regulatory Authority of India (TRAI)
- Payment by on credit card a surcharge should be off
- Financial literacy drive that exploits all possible communication channels to educate customers.
- Digital or electronic payment should be promote
- Government introduced direct benefit transfer (DBT) for better targeting of beneficiaries, state govt. should also adopt
- Opening new bank branches in rural and unbanked areas

# The Impact of Inventory Management Practices on Financial Performance of Tata Consultancy Services Limited

Prabal Chakraborty\*  
Anupama Munshi\*\*  
Naresh Gupta\*\*\*

## Abstract

Inventory management decisions are an integral aspect of any organization. Inventories are raw materials, work-in-process goods and finished goods that are considered to be the portion of businesses' assets that are ready or will be ready for sale. Formulating a suitable inventory model is one of the major concerns for an industry. Manufacturing Company applies various techniques in the management of its inventory. The practices adopted have a significant impact on returns, profitability and volume of sales. This paper examines the impact of inventory management practices on the financial performance of Tata Consultancy Services. The study examines the effect of inventory performance on profitability of the firm. The study employs the use of secondary data. Secondary data was collected from Annual Financial Report (2006-07 to 2015-16) of Tata Consultancy Services. Descriptive statistics was used to test the impact of inventory management practices and Correlation analysis was used to determine the nature and magnitude of the relationship among inventory management variables. The results indicate that there exists a positive correlation between inventory management and return on sales and also with return on assets and return on equity, which was found to be statistically significant at 5% level.

**Keywords:** Inventory Management, Financial Performance, Return on Sales, Return on Equity, Return on Assets in Tata Consultancy Services.

## Introduction

Inventory is one of the important parts of current assets, particularly in manufacturing companies. Massive funds are committed to inventories to ensure smooth flow of production and to meet consumer demand. However, maintaining optimum inventory also involves holding or carrying costs along with opportunity cost. Inventory management, therefore, plays a crucial role in balancing the benefits and disadvantages associated with holding inventory. Efficient and effective inventory management goes a long way in successful running and survival of a business firm. The importance of proper management of inventory need hardly be emphasized. In any manufacturing industry, nearly 60% to 70% of the total funds employed are tied up in current assets, of which inventory is the most significant component (Carter, 2002). According to Pandey (2005), management through its policies, coordination, decision and control mechanism must maximize the return on investment (ROI). Peterson and Joyce (2007), while supporting Pandey (2005), state that it is clear that ROI can be maximized either by increasing profit margin or by reducing the capital employed or by both. In the market situation, sales price cannot be increased (rather there is a demand to reduce it) and as such profit can be increased only by reducing the material costs. On the other hand, the opportunity to reduce the overheads and capital employed is more by inventory reduction (Drury, 2002). It is thus evident that the ROI can be maximized by either reducing the material cost or reducing the current assets by way of inventory of materials or can

be optimized by increasing profits. Peterson and Joyce (2007) maintain that it is evident that the inventory management can make a direct contribution in increasing profitability in the following ways:

- (a) By deciding inventory norms nationally and through control systems, inventory turnover can be maximized which in turn will maximize current assets turnover and ROI.
- (b) By proper planning and control of spare parts, capacity utilization can be increased which will increase the turnover of fixed assets and consequently increase ROI.
- (c) By developing dependable sources and purchasing quantity materials at competitive prices, Material cost per area of sales can be brought down which will increase the profit margin.
- (d) By developing proper systems and control on issue of materials, the consumption can be minimized, reduction in wastes and rejects, resulting in reducing the materials cost, which will increase the profit margin.
- (e) Establishment of farms to grow the major raw materials and less dependence on importation.

## Meaning

Inventory may be referred to as all the items that make up the product which the company is producing for sale and the product itself. It signifies those items which are either in the form of finished products ready for sale or in the production process or in

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the shape of materials yet to be used. In the words of Waters (2005, p. 4), inventory is a list of the items held in the stock and stock in turn consists of all the goods and materials that are stored by the organization for future use. According to Fabozzi and Peterson (2003, p. 664), "Inventory is the stock of physical goods for eventual sale. Inventory consists of raw material, work-in-process, and finished goods available for sale". International Accounting Standards Board (2007) defines inventories as items that are held for sale in the ordinary course of business; in the process of production for such sale; or in the form of materials or supplies to be consumed in the production process or in the rendering of services.

## Types of Inventory

The inventory of an organization may take different forms. In the case of a manufacturing company, it may consist of raw materials, work-in-process and finished goods, while for a trading concern it may consist only of finished goods. In the case of service firms, there may not be any inventory. Hence, classification of inventory and its levels vary from organization to organization depending upon the nature of business carried out. Inventory may be classified as follows:

1. **Raw Materials:** Raw materials refer to those items which are utilized in the production of finished goods or intermediate goods to be used in further manufacturing. Irrespective of the type of raw material, all manufacturing companies maintain a raw material inventory (Rangarajan & Misra, 2005, p. 193).
2. **Work-in-Process:** It consists of semi-finished goods or materials which require further processing so that these can be turned into final products. In the words of Rustagi (2001, p. 1012), work-in-process refers to raw materials engaged in various phases of the production schedule. The complication involved in the manufacturing process and time consumed to round up a production cycle play a major part in determining the value as well as the quantum of work-in-progress.
3. **Finished Goods:** To put in simple words, finished goods refer to those products which are ready for sale. They consist of end products. The stock of finished goods can be used to provide a buffer between production and market demand (Muller, 2003, p. 4). The purpose of maintaining finished goods stock is to warrant timely and adequate supply to the customers.
4. **Stores and Spares:** Stores, otherwise known as purchased gear, are another important ingredient of the production process. Spares also form a part of inventory. Instead of directly contributing to the final yield of the product these provide the desired support for smooth flow of the production process. They are considered as inventory

basically due to their short life and also because they are stocked up along with materials. Their issuance procedure and accounting is also similar to those of materials. Decisions pertaining to spares are based on their financial cost as well as the costs associated with their non-availability.

5. **Packing Material:** It refers to the stock of materials necessary for the packing of finished goods. In other words, the materials into which the end products are packed or stored so that they can be delivered to the customers. They add convenience with respect to the handling of the finished products and also add appeal to the product.

## Inventory Management

Inventory management involves striking a trade-off between the advantages of holding inventory and the costs associated with keeping it (Shim & Siegel, 2007, p. 112). This means that the optimum amount of funds needs to be invested in inventories so as to avoid the menace of short as well as excess inventory. Inventory management focuses on having enough inventory-in-hand of various products so as to shun the risk of a stock out as well as retaining that much inventory which does not turn out to be a burden on profits of the firm. An appropriate inventory management system is imperative for infusing success in operations of the business. Inventory management is essential for the continuity and survival of any goal-focused manufacturing organization (Adeyemi & Salami, 2010). Scientific inventory management not only brings about substantial cost savings but also results in improved production capacity of plants, saving in labour costs and time, reduction in material costs, reduction in storage space, reduction in material wastages, smooth flow of production, easier production control and so on. Thus, scientific and effective inventory management will result in a relatively high inventory utilization ratio, low write-offs of obsolete or deteriorated inventories and few instances of work stoppages or loss of sales due to stock-outs. And ultimately, all this contributes to a high profit margin, a high total assets' utilization and a high rate of return on investment. A firm, which overlooks the management of inventories, encounters serious issues relating to long term profitability and may fail to survive (T. Singh, 2012).

## Tata Consultancy Services

Tata Consultancy Services is a provider of information technology (IT) services. It provides a wide range of services including business consulting, information technology, business process outsourcing (BPO), infrastructure, and engineering. The company operates in Americas, Europe, Middle East and Asia Pacific. The company is headquartered in Mumbai, India. The company is a part of one of India's most respected business conglomerates, the Tata Group.

- TCS started its operations in 1968, and pioneered the IT services industry out of India.
- First and the largest
- Software Research & Development Centre in India
- Software Exporter in India
- 1st Company in the world to be assessed at Level 5 for integrated enterprise-wide CMMI and PCMM
- Its Group consolidated revenue: Rs 48893 crores (march 2012) and Group profit after tax: Rs.10414 crore (march 2012).

## Vision

To decouple business growth and ecological footprint from its operations to address the environmental bottom-line.

To grow sustainably and help our customers achieve sustainable growth through our green solutions and service offerings.

## Mission

To help customers achieve their business objectives by providing innovative, best-in-class consulting, IT solutions and services.

## Values

Integrity, leading change, excellence, respect for the individual, and fostering an environment of learning and sharing.

## History of TCS

Tata Consultancy Services Ltd (TCS) was founded in 1968 by a division of Tata Sons Limited. In 1981, TCS established India's first dedicated software research and development center, the Tata Research Development and Design Center (TRDDC) in Pune. In 1985 TCS established India's first client-dedicated offshore development center, set up for client Tandem. In 2005 TCS became the first India-based IT services company to enter into the bioinformatics market. In 2006 TCS designed an ERP system for the Indian Railway Catering and Tourism Corporation. TCS entered the small and medium enterprises market for the first time in 2011, with cloud-based offerings. May 2013, TCS was awarded a six-year contract worth over INR 1100 crore to provide services to the Indian Department of Posts. July 2014, TCS became the first Indian company to cross the Rs 5 lakh crore mark in market capitalization.

## Businesses Served - TCS

### Important Products Offered

- Hospital management software (TATA- HMS)
- Tata Bio-Suite

- Master craft – modeling tool for software architecture
- ADEX – modeling tool & repository for storing application models.
- Apollo ( Insurance Soft ware )
- IIMS (Integrated Insurance Management System)

### TCS offices in India

- Mumbai:17 centers in Mumbai
- Chennai:11 offices in Chennai
- Kolkata:9 centers in Kolkata
- Pune:7 centers in Pune
- Bangalore:5 offices in Bangalore
- Gurgaon:5 offices in Gurgaon
- Hyderabad:4 branches in this city

### Global Presence

In terms of a global presence, the numbers speak for themselves. As of March 31, 2010, TCS had 142 offices spread across 42 countries and 105 GDCs in 20 countries:

- 18 offices in the US and Canada.
- 12 offices in seven countries in Latin America.
- 11 offices in the UK and Ireland.
- 22 offices in 12 countries in Europe.
- 18 offices in 12 countries in Asia Pacific.
- Seven offices in six countries in the Middle East and Africa.
- 52 offices in 12 locations in India.

## Shaping the future of India

Consumers are increasingly choosing Digital channels including mobile to buy and consume the products and services they need. This also applies to the way citizens today want to access public services. India has the potential to leapfrog most societies in its use of technology to drive development and growth by using social and technology-based platforms in order to leverage the new digital infrastructure that is rapidly being built and deployed across the country. India today boasts of over a billion mobile connections and its netizens are among the largest user bases on global social platforms.

The Indian government is driving the 'Digital India' agenda through multiple policies and initiatives – leveraging the Aadhar card to promote cashless transfers to beneficiaries; incentivising the creation of new Smart Cities, or facilitating mobile payments by licensing new 'payments-only' banks. There are multiple initiatives taking place across different strata of the economy and TCS is proud to play a role in many of these facets.

Financial Inclusion: Consider policies that have enabled 450 million new 'nofrills' bank accounts to be opened by banks including 216 million through the Prime Minister's Jana Dhan

Yojana scheme alone. TCS has been playing a significant part in enabling this vision. TCS platforms and software support 113 million accounts in 102 banks through cost-effective technology delivery models such as Bank-in-Box-on-Cloud, mobility in service delivery, financial gateway to ensure integration, interoperability, transaction and integrity and the remote control of field operations.

TCS' impact does not end there. Over 140 rural banks under NABARD use the TCS cloud platform to reach and service over 54 million customers.

In addition, India's largest bank, State Bank of India, which runs on TM TCS BaNCS, now has over 500 million accounts of 1.1 billion accounts in the country.

**Digital Assessment:** India is among the largest markets for examinations and assessments in the world. TCS has been playing a significant part in disrupting the higher education sector to bring in transparency, speed and high quality of assessments and examination. Till date, TCS' iON platform has assessed over 53

million candidates using its network of 4,330+ test centres across 460+ cities resulting in an overall reduction in effort by 70% for controller of Exams and most importantly, a massive reduction in overall cycle time from 8 months to 10 days. Similarly, for board examinations, the iON platform has resulted in 40% reduction in evaluation process time for the three million answer books evaluated as on date with total elimination of transporting physical answer books with 99.99% reduction in re-evaluation requests.

TCS has changed the way consumers use mobile payment systems with its mWallet offering implemented with major telecom providers in India. mWallet provides customers with a new form of currency powered from their mobile phones. With millions of customers and a network of over 1,00,000 agents, spread across urban and rural India, mWallet platforms have successfully exploited mobile penetration to provide basic banking services on the mobile. Distribution of wages, government benefits, enabling e-commerce and many more new transactions on mWallet are truly making mobile the new bank account.

### Performance of The Tata Consultancy Services Past Ten Years

Table 1 & 2 - Year-Wise REVENUE , ASSETS & NET INCOME

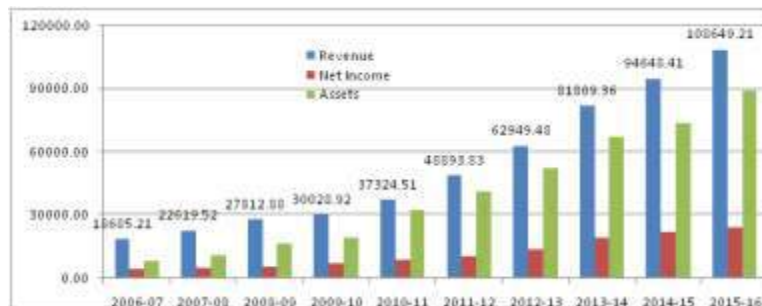
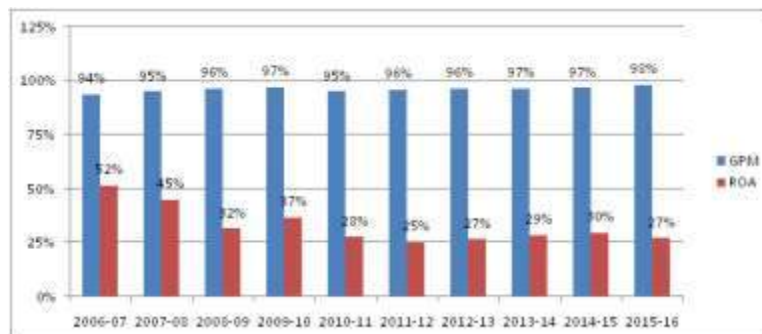


TABLE 3 - Financial Performance of TCS



## Literature Review

Armstrong (1985) has mentioned that it is, very difficult to manage inventories efficiently and effectively in order to avoid unnecessary investment. A firm avoiding the management of inventories will be effecting its long-run profitability and may fail ultimately. It is possible for a company to reduce its levels of inventories to a considerable level without any adverse effect on production and sales, by using simple inventory planning and control techniques. The reduction in excessive inventories carries a favorable impact on a company's profitability.

Sharma (2003) defines inventory as the quantity of goods, raw materials, or other resources that are idle at any given point of time. From the definition above, inventories consist of raw materials, component parts, supplies or finished assemblies etc. which are purchased from an outside source, and goods manufactured in the enterprise itself. In simple words, inventory refers to stocks held by a firm.

Eneje et al (2012) investigated the effects of raw materials inventory management on the profitability of brewery firms in Nigeria using a cross sectional data from 1989 to 2008 which was gathered for the analysis from the annual reports of the sampled brewery firms. The study revealed that the local variable raw materials inventory management designed to capture the effect of efficient management of raw material inventory by a company on its profitability is significantly strong and positive and influences the profitability of the brewery firms in Nigeria. They concluded that efficient management of raw material inventory is a major factor to be contained with by Nigerian brewers in enhancing or boosting their profitability.

Gaur and Bhattacharya (2011), attempted to study the linkage between the performance of the components of inventory such as raw material, work in progress and finished goods and financial performance of Indian manufacturing firms. The study revealed that finished goods inventory was inversely associated with business performance while raw material inventory and work in progress did not have much effect on same. They emphasized that instead of focusing on total inventory, an attempt should be made to concentrate on individual components of inventory so as to adequately manage the same. They concluded that managers not paying heed to inventory performance may become weak in combating competitors.

## Objectives of the Study

The prime objective of the study is to analyse the management of inventory in the fertiliser industry of India and its effect on business profitability. The specific objectives of the study are as follows:

1. To study the trend and growth rate of inventory.
2. To examine the inventory performance through ratios.
3. To assess the relationship between inventory turnover and profitability.
4. To investigate the impact of gross margin, capital intensity, firm size and growth on inventory turnover.

## Methodology

This segment of the study deals with the sample and data, hypotheses so structured, variables and model specifications used. The study is based on the financial information acquired from the financial statements 2007 to 2016 (Annual Reports of ten years) of the Tata Consultancy Services Limited.

## Variables:

The variables have been classified as dependent variables and independent variables. The dependent variables include profitability measure, that is, gross operating profit margin (GPM) and Return on asset (ROA) to study the impact of inventory management variables IT, ICP, on it.

Gross Profit Margin = Gross Profit / Sales,

Return on Assets (ROA) = Net Income / Total Assets

Inventory Conversion Period (ICP) = 365 / Inventory Turnover

Firm Growth (FG) = (Salest – Salest-1) / Salest-1

Firm Size (FS) = Natural Log (Total Assets)

Model specification:

The regression analysis was based on the linear equations expressed as follows:

ROA =  $\beta_0 + \beta_1(\text{ICP}) + \beta_2(\text{FG}) + \beta_3(\text{FS}) + \beta_4(\text{IT}) + \epsilon$  .....

Model 1

GPM =  $\beta_0 + \beta_1(\text{ICP}) + \beta_2(\text{FG}) + \beta_3(\text{FS}) + \beta_4(\text{IT}) + \epsilon$  .....

Model 2

## Hypothesis:

**Ho:** Raw materials inventory management has no significant effect on the profitability of Tata Consultancy Services Limited.

**H1:** Raw materials inventory management has significant effect on the profitability of Tata Consultancy Services Limited.

## Descriptive Analysis

Table 4 - Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Gross Profit Margin	10	94.00	98.00	96.1000	1.19722
Return on Assets	10	25.00	52.00	33.2000	8.86692
Inventory conversion Period	10	.36	2.20	.9010	.51742
Inventory Turnover	10	165.75	1007.88	516.2620	265.27781
Firm Growth	10	8.00	41.00	23.8000	9.48449
Firm Size	10	3.91	4.95	4.4960	.36339
Valid N (list wise)	10				

The table 4 above presents the descriptive statistics and the distribution of the variables considered in this research: Inventory turnover (IT) Inventory Conversion periods (ICP) Firm size (FS) Firm Growth (FG) Return on Asset (ROA) and Gross profit margin (GPM). The descriptive statistics considered were minimum, maximum, mean and standard deviation. The study showed that Profitability which was represented by return on assets (ROA) had a mean of 33.2 and standard deviation of 8.86. The return on

assets was on average, 33.2% of the TCS (total assets – financial assets). Alternatively, GPM on average had a return rate of 96.1% of the total sales of the TCS, which is better off as compared with the Return on the Asset. The study also showed that the logarithm of assets at 4.49 shows the average size of the companies under study. The firm growth predicted by sales indicates a turnover growth on average of 23.8 with a standard deviation of 9.48 showing a high growth rate of the TCS.

TABLE – 5 - Correlations

		Gross Profit Margin	Return on Assets	Inventory Turnover	Inventory conversion Period	Firm Growth	Firm Size
Gross Profit Margin	Pearson Correlation	1	-.630	.815 <sup>**</sup>	-.807 <sup>**</sup>	-.654 <sup>*</sup>	.767 <sup>**</sup>
	Sig. (2-tailed)		.051	.004	.005	.040	.010
	N	10	10	10	10	10	10
Return on Assets	Pearson Correlation	-.630	1	-.511	.734 <sup>*</sup>	.254	-.850 <sup>**</sup>
	Sig. (2-tailed)	.051		.131	.016	.478	.002
	N	10	10	10	10	10	10
Inventory Turnover	Pearson Correlation	.815 <sup>**</sup>	-.511	1	-.817 <sup>**</sup>	-.495	.817 <sup>**</sup>
	Sig. (2-tailed)	.004	.131		.004	.146	.004
	N	10	10	10	10	10	10
Inventory conversion Period	Pearson Correlation	-.807 <sup>**</sup>	.734 <sup>*</sup>	-.817 <sup>**</sup>	1	.632 <sup>*</sup>	-.796 <sup>**</sup>
	Sig. (2-tailed)	.005	.016	.004		.050	.006
	N	10	10	10	10	10	10
Firm Growth	Pearson Correlation	-.654 <sup>*</sup>	.254	-.495	.632 <sup>*</sup>	1	-.257
	Sig. (2-tailed)	.040	.478	.146	.050		.473
	N	10	10	10	10	10	10
Firm Size	Pearson Correlation	.767 <sup>**</sup>	-.850 <sup>**</sup>	.817 <sup>**</sup>	-.796 <sup>**</sup>	-.257	1
	Sig. (2-tailed)	.010	.002	.004	.006	.473	
	N	10	10	10	10	10	10

<sup>\*\*</sup>. Correlation is significant at the 0.01 level (2-tailed).

<sup>\*</sup>. Correlation is significant at the 0.05 level (2-tailed).

Gross Profit Margin on the other hand has a negative correlation coefficient with Inventory Return on Assets of -0.630. This implies that with increase in GPM, ROA would fall and vice versa though the relationship between them is statistically insignificant.

The ICP and GPM have a strong positive relationship, as the coefficient of correlation is 0.815. This means that an increase in

the inventory conversion period leads to an increase in the gross profit margin and vice versa. This finding indicates that firms, which hold inventory for a longer period, are likely to increase their profits. The results of the correlation analysis are consistent with earlier studies taken on this subject.

**TABLE- 6 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.952 <sup>a</sup>	.907	.832	3.63130

a. Predictors: (Constant), Inventory Turnover, Firm Growth, Firm Size, Inventory conversion Period

**TABLE - 7 - ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	641.668	4	160.417	12.165	.009 <sup>a</sup>
	Residual	65.932	5	13.186		
	Total	707.600	9			

a. Predictors: (Constant), Inventory Turnover, Firm Growth, Firm Size, Inventory conversion Period

b. Dependent Variable: Return on Assets

**TABLE – 8 Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	140.142	33.147		4.228	.008
	Inventory conversion Period	7.091	5.758	.414	1.232	.273
	Firm Growth	.101	.201	.108	.503	.636
	Firm Size	-29.012	7.645	-1.189	-3.795	.013
	Inventory Turnover	.028	.009	.852	3.046	.029

a. Dependent Variable: Return on Assets

The regression equation shows that the Return on Asset will always depend on a constant factor of 140.142 regardless of the existence of other profit determinants.

The t and Sig (p) values gives a rough indication of the impact of each predictor variable on the predicted variable. An absolute t value > 2 and p value < 0.05 suggests that a predictor variable is having a large impact on the criterion or dependent variable. The table therefore shows that Return on Assets (ROA) has a significant impact on the profitability of TCS. This is evidenced by

Firm Size calculated  $t = 3.795 > \text{Critical value of } t$ . The result is further strengthened with the Firm Size significance value of  $0.013 < 0.05$ . Given the above, we reject the null hypothesis while accepting the alternate and conclude that Firm Size inventory management has significant effect on the profitability of TCS. These suggest strongly that firm size has significantly effect on return on assets.

The result further shows that Inventory Turnover significance value of  $0.029 < 0.05$ . Given the above, we reject the null



hypothesis while accepting the alternate and conclude that Inventory Turnover has significant effect on the profitability of TCS. These suggest strongly that firm size has significant effect on return on assets.

The resultant regression equation is as follows :

$$ROA = 140.142 + 7.091(ICP) + .101 (FG) - 29.021(FS) + .028(IT)$$

**Table 9 - Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.907 <sup>a</sup>	.824	.682	.67472

a. Predictors: (Constant), Inventory Turnover, Firm Growth, Firm Size, Inventory conversion Period

Table 9 indicates that the R square value is 0.824, which indicates that 82% of the variation in the dependent variables is explained by the independent variables while 18% of the variation is

explained by other factors outside the model and the error term. The R-value is 0.907, which indicates a strong positive correlation between the dependent and the independent variables.

**Table – 10 ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.624	4	2.656	5.834	.040 <sup>a</sup>
	Residual	2.276	5	.455		
	Total	12.900	9			

a. Predictors: (Constant), Inventory Turnover, Firm Growth, Firm Size, Inventory\_conversion Period

b. Dependent Variable: Gross Profit Margin

From the ANOVA table 10 above, the regression source of variation of 10.624 is higher than the residual source of variation of 2.276. Thus, the regression model is able to explain larger portion of the variations in the dependent variables (GPM) than

the residual source of variation. The, p-value is 0.04 which is less than the 0.05 , set as standard significance levels indicating that the model is significant and fit.

**Table 11 Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	88.449	6.159		14.361	.000
	Inventory conversion Period	.274	1.070	.118	.256	.808
	Firm Growth	-.060	.037	-.477	-1.612	.168
	Firm Size	1.854	1.420	.563	1.305	.249
	Inventory Turnover	.001	.002	.215	.559	.600

a. Dependent Variable: Gross Profit Margin

The resultant regression equation is as follows

$$GPM = 88.449 + .274(ICP) - .06 (FG) + 1.854(FS) + .001(IT)$$

The results on table 11 show that firm growth has a positive and significant relationship with gross profit margin. This indicates that there is a direct relationship firm growth and profitability of

TCS, which indicates that an increase in these variables increases profitability. Inventory turnover and inventory conversion period has also positive significant relationship with gross profit. However, firm growth has a negative relationship with profitability with a coefficient of 0.060 which is statistically insignificant at 0.168 p-value.



## Conclusion

This paper measured the effects of inventory management on the profitability of TCS. A dataset of TCS during the period of 2007 to 2016 provided the basis for the econometric analysis. Findings from this study reveal that the focal variable pertains to inventory management designed to capture the effectiveness of a company's management of part of working capital on profitability is significantly positive and impacts on profitability of the TCS. From the results of the study, return on assets is the major variable that has significant positive relationship on the profitability of the TCS. Firm Size and Inventory Turnover is therefore an important factor to be considered in enhancing or boosting the performance of TCS. It is therefore necessary that adequate management of Firm Size and inventory turnover should be pursued by TCS. This can be achieved by acquisition of Firm and re-training of staff from time to time to update their knowledge and skills in modern inventory Techniques.

The study also concludes that increase in sales, which denotes the firm size enriches the firms' inventory levels, which pushes profits upwards due to optimal inventory levels. It is also noted that firms inventory systems must maintain an appropriate inventory levels to enhance profitability and reduce the inventory cost.

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# Financial Literacy in Banking Services : A Help for Common People

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## Abstract

Most of the people in the world need to do a lot of financial transactions at a number of times in their life time to meet out different kind of objectives and needs. Some of them are very comfortable in doing all kind of transactions; while on the other hand, there are many people who remain unable to understand the type and kind of transactions they have to do. By looking at the scenario, it is clear that some people are financially literate and some are not and some other people know a little bit and are able to handle simple transactions easily but face problem when technicality is involved. In general, for a large population, this problem remains critical at the time of taking loans, making investment, saving, making donation, taxation etc. The know-how of financial matters makes a great impact on the wealth, wealth building, living standards, family brought-up and socio-financial status among the people living in the same national or geographical boundaries. So, we find some people in really good financial position, many other in comfortable position and others in not so good position in terms of financial wealth. It is because that one group of people has set of skills, knowledge and information about the financial matters, that enable them to make good financial decisions and get adequate benefits. Many programs for financial literacy are organized for schools, for graduating students; various other activities like plays & skits are organised in villages and slum areas, videos for to do and not to do, training and teaching programs by financial companies and voluntary agencies are also organised on regular basis to spread awareness. On January 14, 2016, RBI released the revised Financial Literacy Guidelines. Without Financial Literacy many people, as well companies, are befooling common public, especially women and these victims of frauds become defaulters of loans and Financial Transactions.

**Key Words:** Financial Competency, Financial Inclusion, Financial Exclusion, Financial Education, Financial Literacy

## Introduction

Financial education is “the process by which people improve their understanding of financial products, services and concepts, so they are empowered to make informed choices, avoid pitfalls, know where to go for help and take other actions to improve their present and long-term financial well-being”. Financial literacy is “the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being”.

One of the definitions of Financial Literacy offered (from the U.S. Government Accountability Office, GAO) is “the ability to make informed judgments and to take effective actions regarding the current and future use and management of money. It includes the ability to understand financial choices, plan for the future, spend wisely, and manage the challenges associated with life events such as a job loss, saving for retirement, or paying for a child’s education.”

The need for financial literacy and its importance for financial inclusion have been acknowledged by all possible stakeholders - policymakers, bankers, practitioners, researchers and academics – across the globe. Various financial literacy programs have thus been implemented by concerned institutions

## Financial Competency

Financial competency is ability and skills in the financial literate people to do financial transactions by their own without the help of others or financial advisors etc. It is more important that, to have financial literacy, means to become financially competent. A person may be knowing a lot things about financial transactions but he is not able to use them or practice them because he is afraid that something might go wrong and he would lose his money or he is not confident in the system of financial transactions.

Financial Education is the process of building knowledge, skills and attitudes to become financially literate; and introducing people to good money management practices with respect to earning, spending, saving, borrowing and investing. The role of financial education is to bring not only financial literacy but to enable people to be financially competent and to be active decision maker to fulfill their financial needs.

## Financial Exclusion

“Exclusion is the lack of access by certain consumers to appropriate low cost, fair and safe financial products and services

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from the main stream providers". "There is a large overlap between poverty and permanent financial exclusion. Both poverty and financial exclusion result in a reduction of choices which affects social interaction and leads to reduced participation in society".

### Exclusions are of three types:

- (a) Those who do not have any access to formal or informal financial systems
- (b) Those who have, but limited access to financial services and banks and
- (c) Those who find mismatch in availability of products & services and their requirements.

Lack of banking knowledge/habits, high transactions and opportunity costs prevent people from financial inclusion. Inaccessibility, proximity issues and insufficient infrastructure also impede financial inclusion.

Financial Literacy is a crucial part of the financial inclusion. "Financial Literacy as a Tool for Financial Inclusion and Client Protection". Financial literacy helps:

1. To define and state the roles and responsibilities of all the stakeholders.
2. To unify efforts that are required among all stakeholders, while working on FL / FI
3. To ensure sustainability for all stakeholders associated with FL / FI
4. To undertake FL / FI with structured approach
5. To design and deliver FLP with focus on 'Target Group'
6. To demonstrate FL / FI models with pilots
7. To build/strengthen the capacity of institutions and human resources associated with FL/FI.
8. To make use of ICT to accelerate FL / FI
9. To innovate products / processes for successful and sustainable FL / FI.
10. To strengthen the delivery channels as the last mile connectivity is the key for the success of FL / FI
11. To integrate MNREGA / NRLAM / NSDC and such other schemes with FL/FI Program
12. To institute and implement a review / monitoring and follow-up system for the success of FL / FI.

13. To continue efforts towards a totally financially included nation, through strong financial education.
14. To recognize a need for a broadly uniform content (regional sensitive, of course) for FLPs and,
15. To establish centralized training institutes to train the trainers of FLPs.

### Financial Inclusion

Financial Inclusion or Inclusive Financing is the delivery of financial services at affordable cost to sections of disadvantaged and low income segments of society. The term financial inclusion was used for the first time in April 2005 in the Annual Policy Statement presented by Y. Venugopal Reddy, the then Governor of Reserve Bank of India.

Financial Inclusion (FI) aims at providing access to comprehensive financial services at affordable cost. It can be sustainable only when the target population makes use of such services on a sustained basis.

In the war against poverty, Financial Inclusion (FI) has emerged as a priority for policy makers and regulators in over 60 developing countries across the globe. A Financial Inclusion Experts Group (FIEG) was created to expand access to finance for household consumers and micro, small & medium sized enterprises.

In India, though the activity of financial inclusion started as early as 1950, but it was only from the year 2005 onwards that financial inclusion has been considered a Policy Priority for Reserve Bank of India (RBI), India's Central Bank, which has given several directions and guidelines during the past one decade. RBI looks at FI as an effective tool for inclusive growth ensuring equality of opportunity for all. Keeping a credit delivery focus, RBI has given guidelines to banks in the country encouraging financial inclusion such as implementation through the banks and dis-incentivizing those banks which are not responsive to the community including the underprivileged. From 2006 onwards more enabling environment has been created by opening no-frill accounts, providing overdraft facility for Savings accounts, relaxing Know Your Customer (KYC) norms, permitting the banks to use the services of intermediaries-Business Correspondents (BC) and Business Facilitators (BF).

		INDIA	WORLD
Share with an account at a Formal Financial Institution	All Adults	35	50
	Poorest Income Quintile	21	38
	Women	26	47
Adults Saving in Past Year	Using a Formal Account	12	22
	Using a Community Based Method	3	5
Adult Originating a New Loan in the Past Year	Form a Formal Financial Institution	8	9
	From Family or Friend	20	23
Adults with a Credit Card		2	15
Adults with an Outstanding Mortgage		2	7
Adults paying Personally for Health Insurance		7	17
Adults using Mobile Money in the Past Year		4	7

### Statistics on Financial Inclusion in India (in comparison with world)

(Reserve Bank of India's 2012 Annual Report.)

For any financial inclusion initiative to be successful, both the supply of and demand for financial services have to be strengthened. The UNDP-NABARD Financial Inclusion project

works on strengthening demand for financial services, by supporting the Financial Literacy (FL) programs. UNDP, under the poverty reduction program, partnered with NABARD to design and strengthen implementation of financial inclusion project focusing on people belonging to disadvantaged groups and regions.

PERIOD	PROCESS PHASE	STEPS TAKESN
1950-70	Consolidation of Banking Sector and facilitation of Industry and Trade	Co-operative Movement
		Setting up of State Bank of India
1970-90	Focus of Channeling of Credit to neglected sectors and weaker section	Nationalization of Banks
		Lead Bank Scheme
1990-2005	Focus on strengthening the financial institutions as part of financial sector reforms	Regional Rural Banks
		Service Area Approach
2005 onward	Financial Inclusion was explicitly made as a policy objective	Self Help Groups
		BCs& BF's concept

Financial Inclusion Measures taken by the Government of India  
The above table reflects an understanding and congenial policy environment in the country towards a steady financial inclusion.

As the financial literacy need was being felt strongly towards a financial inclusion, empowerment and protection; several agencies started working together towards this goal.

## Financial Inclusion Index:

On June 25, 2013, CRISIL, India's leading Credit Rating and Research Company launched an index to measure the status of financial inclusion in India. The index was released by the Finance Minister P. Chidambaram at New Delhi. CRISIL inclusix is one of its kind tool to measure the extent of inclusion in India, right down to each of the 632 districts. The scale of the index is 0 to 100 and combines three critical parameters of basic banking services – branch penetration, deposit penetration and credit penetration.

- The All India CRISIL inclusix score of 40.1 is low, though there are clear signs of progress. Deposit penetration is the key driver of financial inclusion.
- The number of saving accounts (642 million), is almost four times the number of loan accounts (160 million).
- 618 out of 632 districts reported an improvement in their scores during 2009-2013.
- The Top Three States and Union Territories are Puduchery, Chandigarh and Kerala, the top three districts are Pathanamthitta (Kerla), Karakal (Puduchery) and Thiruvananthapuram (Kerala).

Key findings as per the IndiaToday.in, December 15, 2015 for financial literacy are:

1. About 39% of the adults who borrowed formal loans were financially literate, while about 27% of formal loan borrowing adults were not.
2. 26% of the adults in the richest 60% of households are financially literate, while in 40% of the poorest households, only 20% are financially literate.
3. The income gap is evident when the survey is broken down by concept - Poor adults are 21 percentage points less likely than richer adults to correctly answer the compound interest topic correctly. With regard to interest, the gap is 11 percentage points.
4. 38 percent of adults with tertiary education are financially literate; compared to 30 percent of adults with secondary education, and 18 percent of adults with primary education.
5. Only 14% of Indian adults save at a formal institution indicating a weak financial base for most Indians.
6. 73% Indian men are not financially literate while 80% Indian women are not financially literate.
7. Among other countries, 57% of the adults in the US are financially literate; while in the UK 67% of the adults are financially literate.
8. In Asia, Singapore is home to the highest percentage of financially literate adults (59 percent), followed by Hong Kong and Japan (both at 43 percent). And less than one third of adults in China (28 percent) are financially literate.

## Financial Literacy Initiatives:

Recently, the Government of India and Reserve Bank of India have initiated a number of programmes throughout India for financial literacy to educate people in financial matters. The programmes have been organized through academic institutes as VISAKA, that was a great hit, through camps as digi-camps and through a call for skilled and literate people to educate the unskilled and uneducated of financial matters. For this, various age groups were targeted - school and college going children, women, rural and urban people, senior citizens, defense personnel etc. Under these programs, importance, safety, easy-handling of money & money transactions, keeping and maintaining the accounts in banks and hassle free transactions without handling cash were taught.

Literacy i.e. educational literacy can be judged by means of educational certificates and degrees which a person has earned. But financial literacy cannot be judged because we do not have any standards or parameters to educate people and so certification cannot be done. Even very highly educated people may not be comfortable in doing various financial transactions and the example is that in a number of cases they are dependent on the financial advisors from banking/insurance/investment industry. So, the better term that may be used is financial competency instead of financial literacy. Financial competency means whether you are competent enough to do financial transactions by yourself or not.

To know the financial competency and literacy we can understand the following things:

1. Whether the person is comfortable while doing banking transactions for a big amount;
2. Can he/she do the banking transactions by him/her-self, without the help of other;
3. Ever they found cheated themselves in financial transactions;
4. Whether they are able to invest money under full safety of their savings;
5. Which investment is more reliable for their savings or earnings
6. To avail different loans for personal use as educational / personal / home / property loan, loan for repair and maintenance, household goods loan for AC, TV, Laptop, etc. whether you are comfortable or not. If not, is it because of unawareness or complicate matter.
7. Whether the complicity or unawareness can be handled and overcome through financial literacy.
8. This financial literacy should be given to only those person who are doing banking transactions or it should be given to the level of student at 10th/12th level or graduation level;

and to every women and other adult person in the villages, tehsil and city level.

9. While preparing the questionnaire, reason for the answer is also planned to ascertain the financial competency. E.g.: if anybody says no to one question than the reason may be that it is complicated or it may be understandable but the person do not do it. Another way, if anybody says yes to one questions than the reason may be understandable or it may be complicated but he/she is doing it any-how, either because of compulsion or for no other way.

As we talking for financial literacy, so I have decided to frame a questionnaire for financial competency and get it filled from 10 different person of 10 different areas on the strategies of education and working habits of a society. The total number of respondents will be 100 in the Ghaziabad region. The differentiation of the strata are as:

1. 10 person who are teacher with Ph. D. degree.
2. 10 person who are teacher with PG degree.
3. 10 person who are graduate and above doing the job.
4. 10 person who graduate and doing own business.
5. 10 person who are medical practitioner as Doctor.

6. 10 person who own their medical store / pharmacy.
7. 10 person who are Owner of the organization / institution.
8. 10 person who are in top management position in the organization.
9. 10 person who are doing job / working which requires no qualification.
10. 10 person who are vendor of different utilities.

To take the appropriate output of financial literacy as financial competency different groups are selected in the society. With the help of the questionnaire and their response from the respondents, the tick for the answer and reason for the answer is evaluated as:

- 1) Yes and understandable + 2 marks
- 2) Yes but complicated + 1 marks
- 3) No because complicated - 2 marks
- 4) No but understandable + 1 marks

For 100% financial competency there should be  $12 \times 2$  marks = 24 marks.

Results after the analysis is mentioned in the following table as category wise respondents with their financial literacy / competency:

S N	Category	Responden t	F Competency %
1	Teacher with Ph. D. degree	10	78.33%
2	Teacher with PG degree	10	70.42%
3	Graduate and above doing the job	10	70.42%
4	Graduate and doing own business	10	79.58%
5	Medical practitioner as Doctor	10	72.92%
6	Own their medical store / pharmacy	10	65.00%
7	Owner of the organization / institution	10	77.92%
8	Top management position in the organization	10	85.42%
9	Doing job / working which requires no qualification	10	54.58%
10	Vendor of different utilities	10	55.42%
	TOTAL	100	71.00%



## Conclusion:

- 1) The survey conducted on 100 people who are well qualified and well aware about the financial transactions and also living in the developed society. Even here the highest financial literacy / competency is 85.42%, and these are top management people like Director, General Manager, Marketing Manager etc. who do high-tech activities for the companies.
- 2) The people who are highly qualified and engage in teaching activities and helping the society building have financial competency as 78.33%, which should be more.
- 3) The teachers with PG degree have a great responsibility towards society having a competency of 70.42%.
- 4) The person like Doctors and Businessman etc. also do have 72.92% and 79.58% financial literacy / competency.
- 5) People those require no special qualification have approximately 55% literacy.
- 6) It seems that people do believe in having cash with them and feel better in dealing in cash. They feel that technology and cash management are different things and dealing with cash is more powerful than cashless. It may be a mind-set.
- 7) The young person (youth) in the society is technology friendly and they also want to do the things fast and want to remain safe, so there is a strong need of financial literacy to them.

## Suggestions:

As the study conducted on educational literacy people and moreover in the one of the developed area of the India (Ghaziabad), where people find themselves advanced and almost all are using mobile phones as well smart phones. Most people are using whatsapp application and if net is made available to all people I can anticipate that everybody will be using smart phones. On the above, the study concludes that financial literacy is 71%, which should be more than other parts of the India.

After Modi's demonetization phase there is increased in awareness as well increase in financial program like VISAKA. Government of India as well Reserve Bank of India and other organization say that awareness of financial literacy should be increased at the level of academic institutions.

## Recommendation:

The program of financial literacy should be included in the syllabus of class 11th and/or class 12th. In these classes there are 4 compulsory subjects, 5th subject is optional with options like Physical Education, Engineering Drawing, etc. 6th subject is again optional which is to be chosen out of 2 options like Physical Education and Fine Arts. I recommend Financial Literacy/Financial Education to be made compulsory 5th subject and all the options should be there for the 6th subject. Even if Financial Literacy subject is run for one year in class 11th, it will create a highly positive impact on the society. And within years to come, the

whole of India will become financially literate. Apart from it I would also recommend to all to start using the financial facilities offered by all the banks both private and government, as this will lead to development of the nation along with individual development. It is very clear that young generation is needs more innovations and faster technology and also more and more funds for the educational and career development.

*'Educate the Nation Builder (young generation),  
The best output of Financial Literacy'.*

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# Reforms in Financial Sector for Financial Inclusion

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## Abstract

Financial system of India is going through radical changes. The new initiatives by the Government of India like 'Make in India' boosts manufacturing sector. To cope up with these developments, India is on the verge of fundamental reform in its financial system. The new draft Indian Financial Code (IFC) has been prepared to propose new guidelines. It is a major initiative to modernize Indian finance by transforming the regulatory system, laws and the functioning of regulators. India has undertaken various efforts to rethink financial sector regulations for addressing persistent problems like lack of financial inclusion, slow pace of innovation, unregulated shadow financial system, growing Ponzi schemes, high inflation and the challenges of international financial integration. There was remarkable progress in some areas by removing restrictions imposed by the government; yet, India's real problem does not need for deregulation, but the building of financial regulatory capacity. It is seemingly difficult as it comes in a context where the Indian state has endemically low capacity. Most existing Indian financial laws have been replaced. It outlines the powers of agencies that regulate the financial sector while recognizing that for those regulators to be effective, they must have clear objectives and be held accountable for achieving those objectives.

**Keywords:** Regulators, Finance, Restructuring, Architecture, Agencies.

## Introduction

A new era of economic liberalization started in India in 1991. There was a need of fostering a domestic financial system and scaling back of capital controls. A new framework has evolved to embrace globalization and giving primacy to market-based mechanisms for resource allocation from 1991 to 2002. As a result, four areas witnessed reflected the shortcomings that were then evident. Firstly, there was substantial reduction in capital controls which provided access to foreign capital to India Firms. The development of non-government mechanisms for financing the current account deficit was also evident. Secondly, the New Pension System, a new defined contribution pension system, was developed to provide security to young population to accumulate significant pension funds in advance for demographic transition. Thirdly, Insurance Regulation and Development Authority of India, a new insurance regulator, was established to regulate insurance businesses and allowing private players in the business of social security. Fourthly, there was significant increase in equity market activities. Equity market is an important mechanism for financing firms and the recognition of infirmities of the equity market. Securities and Exchanges Board of India, a new securities market regulator was established along with new infrastructure institutions like National Stock Exchange and the National Securities Depository Limited. There will be a need to build up the institutional machinery for markets as complex as the financial system seen in advanced economies today in coming years in India.

During the year 2004, it was evident that financial economic policy needed to be re-thought of on a much larger scale to address the problems faced by the system even if some elements of modernization of the financial system had taken place from 1992 to 2004. The following Four expert committees recommended various reforms in this sector:

1. High-Powered Expert Committee on Making Mumbai an International Financial Center (Chaired by Percy Misty in 2007)
2. Committee on Financial Sector Reforms (Chaired by Raghuram Rajan in 2008)
3. Working Group on Foreign Investment in India (Chaired by U. K. Sinha in 2010)
4. Committee on Investor Awareness and Protection (Chaired by Dharendra Swarup in 2010)

The findings of these committees were widely discussed and publicly distributed for discussions. These reports laid the stress on internally consistent and comprehensive framework for Indian financial reforms. The four reports diagnosed problems, proposed solutions, and reshaped the consensus.

## Recommendations of the Expert Committees

Among the various recommendations, some were readily implementable as there were no legal bottlenecks and other recommendations were gradually implemented in succeeding

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years. Some of the recommendations made by these committees were incompatible with the present laws.

1. High-Powered Expert Committee on Making Mumbai an International Financial Center (Percy Mistry, 2007): This committee briefed upon the prerequisites for making Mumbai as an International Financial Center. The broad recommendations pertaining to the Central Government includes opening Indian Rupee Bond Market to the foreign investors, creating spot currency market, integrating Financial market with a shift from the existing segmented approach, shifting the present over-prescriptive rules based regulation toward principles based regulation, incurring General Sales Tax (GST) on economic services only, other taxes to be cancelled, to allow the International Law Firms to work in the country.
2. The Committee on Financial Sector Reforms (Raghuram Rajan, 2008): The committee recommended the next phase of reforms for the Indian financial sector. The agenda of the report was to address financial inclusion and domestic financial development. It focused on strengthening the financial and regulatory infrastructure by allowing players more freedom. It recommended leveling the playing field, broadening access to finance, and creating liquid and efficient markets.
3. Working Group on Foreign Investment in India (U. K. Sinha, 2010): The report of the working group sought to rationalize the arrangements relating to foreign portfolio investments by FIIs, NRIs and other classes of foreign investors like foreign venture capital investors (FVCI) and private equity entity etc. It recommended a single window for portfolio investment regulations i.e. FII & sub-accounts of FII and NRI and FVCI to be replaced by qualified foreign investors. The regulatory regime governing foreign investments in India is characterized by a system of overlapping, sometimes contradictory and sometimes nonexistent, rules for different categories of players.
4. Committee on Investor Awareness and Protection (Dhirendra Swarup, 2010): This report emphasized on regulating the market for retail financial products and educating the consumers about the same. It points out the inadequate regulatory framework governing the financial marketers that induces problems like mis-selling. Mis-selling plays an important role in increasing the appetite of sellers rather than caring the interest of the customers. The report proposes a reconfiguration of incentive structure to minimize information asymmetry between consumer and seller.

## Regulatory Governance Scenario

The reports of the four committees discussed above identified numerous shortcomings in the present arrangement because of improperly drafted regulations. Improper implementation, indifferent attitude of governmental agencies, poor organization, ineffective management structures and processes, low quality of their staffing, no feedback loops etc. added to the worries of regulatory implementation. It is not so that these problems merely require writing better regulations. Constructing effective financial law requires an understanding of market failures in finance that will shape appropriate interventions by the government and good public administration practices, which impact the working of government agencies. The pressure of accountability will impel the leaders of an agency to reshape their organization in ways that deliver performance.

To establish framework of independent and accountable financial agencies, the draft of IFC groups, the substantive efforts the Indian government, must address the following market failures in finance:

1. Consumer Protection
2. Micro-prudential Regulation
3. Resolution
4. Systemic Risk Regulation
5. Capital Controls
6. Monetary Policy
7. Public Debt Management
8. Development and Redistribution
9. Contracts, Trading, and Market Abuse

## Investor Protection

The current policy on investor protection in India emphasizes a disclosure-based approach. Firms are under the obligation to disclose a vast detail and consumers must understand themselves to avoid being mistreated. But this approach did not solve the problems of investor protection. Consumers of financial services are often more vulnerable because of the complexity of the services, the longtime horizons of unfolding consequences and cognitive biases. Investor protection requires a special effort by the state.

This is a major gap in current Indian financial regulation that is imposing substantial costs upon the consumers of India. The overlapping and loops in the regulatory mechanism and the weak framework for investor protection have resulted in a procession of scandals such as Collective Investment and Ponzi schemes. There

is a recurrent threat that financial firms that achieve undue influence over their regulators will take unfair advantage of customers. Regulators are empowered under the IFC to impose a range of requirements upon financial service providers, from disclosures to suitability and advice requirements to regulation of incentive structures. The legislation also embeds fairly intrusive powers for regulators, such as recommending modifications in the design of services and products. The choice and application of these powers will be informed by a set of principles that ensure that they are used where they are most required. The powers do not excessively restrict innovation, competition, or other balancing considerations. The local operations would be connected to a centralized and streamlined adjudication process and a well-structured work flow would support the speedy and fair handling of cases. The analysis of patterns in the complaints of consumers at the Financial Redress Agency would feed back into improved regulations.

## A New Financial Regulatory Architecture

Indian Financial Code (IFC) focused on the division of the overall work of financial regulation across a set of regulatory agencies. Many institutional structures can be developed for financial regulatory architecture. Parliament of India evaluates these regulatory architectures and assigns the work associated with laws to a suitable group of statutory agencies. Indian laws feature close connections between a particular agency (for example, the Insurance Regulatory & Development Authority) and the work that it does (in this case, insurance regulation). The IFC does away with such integration because changes in work allocation should not require changes to the underlying laws. IFC proposes that decisions about the legal framework governing financial matters would be kept separate from decisions about financial regulatory architecture. This would result greater legal certainty and facilitate rational choices about financial regulatory architecture that are motivated by considerations about public administration and public economics. Going forward, these problems will be escalated through technological and financial innovation. Financial firms will harness innovation to conduct activities in unregulated areas and when there are overlaps, financial firms will forum-shop, searching for the most lenient regulator and portraying their activities as taking place within the favored jurisdiction. At present, many activities that naturally sit together in one financial firm are forcibly spread across multiple financial firms to suit the contours of the Indian financial regulatory architecture. The financial regulatory architecture should be conducive to greater economies of scale and scope in financial firms. In addition, when the true activities of a financial firm are split up across many entities, each of which is overseen by a different supervisor, no one supervisor has a full picture of the

risks that are present. Only technical objectives can be contracted out to independent regulators that can then be held accountable for objectively defined outcomes; an independent agency cannot be expected to pursue the political objectives of the administration. The financial regulatory architecture should also enable a comprehensive view of complex multiproduct firms and a full understanding of the risks that they take. Finally, the IFC also considers transition issues, breaking up the desired into a set of small and implementable measures.

Keeping in mind above considerations, the IFC envisages a financial regulatory architecture made up of seven agencies. First, the Reserve Bank of India will continue to exist, but its functions will be slightly modified. It will conduct monetary policy, regulate and supervise banking by enforcing the proposed consumer protection and micro-prudential laws, and regulate and supervise payment systems by enforcing these two laws. This proposed financial regulatory architecture is a modest change from present practice that will serve India well in coming years.

## Indian Financial Code: Action Started

The commission gave its first report in March 2013, which drew sharp criticism from the central bank. The revised draft of Indian Financial Code, released on 23 July 2015, has already made to the headlines, as it proposes to dilute the RBI Governor's power; he may no longer have the power to veto policy rates. The revised draft in twenty parts will strive to regulate financial agencies. Under this Act, the Financial Sector Appellate Tribunal was established to exercise the jurisdiction, powers and authority conferred upon it. According to the Act, the general direction and management of the financial agencies will be vested in the respective boards -- the Financial Authority Board for the Financial Authority, the Reserve Bank Board for the Reserve Bank, the Redress Agency Board, with respect to the Redress Agency, the Corporation Board for the Corporation; the Council Board for the Council and the Debt Agency Board, with respect to the Debt Agency. The Code deals with the establishment of financial agencies, establishment and structure of the tribunal, allocation and regulation of financial services. A part of it discusses the functioning of financial agencies, such as boards of financial agencies, strength and composition of boards; decision making, advisory councils, accountability mechanisms and funding for financial agencies. It also mentions the disposal of applications, information and inspections, investigations and offences as executive functions of financial agencies. These financial agencies also have quasi-judicial functions -- administrative law, show cause notices and orders, enforcement actions, procedure for enforcement actions and penalties.

Moreover, the Code also clarifies financial consumer protection, prudential regulation, contracts, trading and market abuse, capital controls, resolution of financial service providers, financial stability and development council, development (provisions for review), public debt management agency, offences, functions, powers and duties of tribunal, miscellaneous, and schedules.

In the meantime, regulators voluntarily adopted principles contained in the IFC, such as those related to the rule of law, accountability, improved regulation-making processes, and improved consumer protection regulations. The Ministry of Finance has released a guidance handbook on actions that will be taken by all existing agencies to enhance governance, drawing on ideas from the IFC that are compatible with existing laws. In addition, the government is likely to embark on the process of building institutional capacity by setting up the bodies that have to be initiated from scratch and so need longer transition periods. Building state capacity to implement the changes proposed by the Financial Sector Legislative Reforms Commission is going to be a huge challenge. Not only will it require new institutions to be set up, but it will also require a change in the way regulators and the government function and interact with firms and consumers. This will necessitate large-scale training of the staff of the regulatory agencies as well as of the Ministry of Finance. The judiciary will be faced with the challenge of learning and interpreting the new law. This body of jurisprudence will continually interpret the IFC in a dynamic environment with changing products and processes. The full adoption of the draft IFC will have a profound impact on India, contributing to a financial system that allocates resources well, achieves higher growth, and reduces risk. This is an important milestone in the development of state capacity in India.

## Transformation with IFC

Financial law should reflect an understanding of market failures in finance. It should acknowledge that bureaucrats and politicians serve their own interests, not necessarily those of the general public. Objectives for financial regulators and mechanisms governing their functions should be clearly specified, and laws should hold leaders of government agencies accountable for performance. Existing laws in India are rooted in the notion that the state is benevolent and feature few checks and balances. The draft IFC steps away from this idea of power without accountability. To pave the way for the law, regulators should voluntarily adopt IFC principles that are consistent with existing laws, such as those related to the rule of law, accountability, regulation-making processes, and consumer protection regulations.

## Conclusion

The health of the financial sector is a matter of public concern in view of its critical contribution to economic performance. Financial regulation and supervision assume importance in ensuring that the financial system operates along sound lines and therefore, policy makers must update their tools to cope with the changes. Huge demand for regulatory resources and constant market innovations will likely limit regulatory responses to the rapidly changing environment. Realizing this, policy makers should constantly look to close the gap by harnessing market forces to complement financial supervision and regulation by embracing an approach to supervision that emphasizes on best practices in micro- and macro- prudential regulation for ensuring financial stability. Going forward, the challenge is to calibrate financial sector development to meet the needs of a rapidly growing and globalizing economy. The implementation of the recommendations of the Financial Sector Legislative Reform Commission is therefore essential and in particular the formation of a Unified Regulatory Agency, which is intended for the growth and sustenance of India's regulatory landscape. There is no doubt that the structure of the regulatory and institutional framework in every country will depend in part on the objectives of regulation and the size of the financial sector, and that the type of risk control systems in place and their effectiveness can affect the regulatory and institutional structure. The role of the Regulator in this context boils down to promote safety and soundness, while allowing the regulators to adjust and adapt to the changes influencing their functioning, they cannot ignore the realities of the Indian economy.

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# Financial Inclusion in India & its Challenges

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## Abstract

At the initial stage after independence, there was little progress in rural areas. Constant chronic poverty, low productivity, lack of access to basic banking facilities, lack of basic infrastructure, poor health and less education were basic problems faced by rural people. Financial inclusion is an innovative term which includes techniques in promoting the banking habits among the rural people because, India is considered as largest rural people consist in the world. About 69 per cent of the households in India belong to rural areas. Thus, financial inclusion can be defined as the delivery of financial services at an affordable cost to various sections of low-income and disadvantaged segments of society. As banking services are in the nature of public good, it is essential that availability of banking and payment services to the entire population without discrimination is the prime objective of the public policy. But in the existing banking system segment of the population, the underprivileged sections of the society are still out of banks' fold. The present study will focus on the challenges of financial inclusion in India.

**Keywords:** Financial Inclusion, Poverty, Low-income.

## Introduction

The process of economic growth, especially when it is on high growth direction, must strive to encompass participation from all sections of society. Lack of access to finance for small/ marginal farmers and weaker sections of the society has been recognized as a serious threat to economic progress especially in the developing countries. Financial Inclusion is one of the most important aspects in the present scenario for inclusive growth and development of economics. Financial Inclusion provides protection to poor from the control of the spurious money lenders. Financial inclusion means extending basic banking services at affordable prices to the low income and disadvantaged groups. The committee on financial inclusion, defined the term financial inclusion as the process of ensuring timely access to financial services and adequate credit where needed by vulnerable groups such as the weaker sections and low income groups at an affordable cost (Rangarajan Committee, 2008). Indian banking sector consists of the Reserve Bank of India (RBI), which is the central bank of India, commercial banks and co-operative banks. In order to make banking services available to the poor people, regional rural banks have also been established.

The financial services include the entire range - savings, loans, insurance, credit, payments etc. The financial system has to provide its function of transferring resources from surplus to deficit units but both deficit and surplus units are those with low incomes, poor background etc. By providing these services, the

aim is to help the poor come out of poverty. So far, the focus has only been on delivering credit.

Households need access to finance for several purposes like for retirement, saving to hedge against unpredictable situations and take products for insurable contingencies. Households also need access to credit for livelihood creation, housing, consumption and their emergencies. Finally, households require financial services to access a wide range of saving and investment products for wealth creation but it all depends upon their level of financial literacy.

## Objective of the study

The current study defines the meaning of financial inclusion and also focuses on the challenges faced in bringing about financial inclusion in India.

## Literature Review

Rangarajan C (2008), "Report of the Committee on Financial Inclusion", Financial inclusion can be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost.

Bhatt (2009) Financial Inclusion currently is seen as at least a member of a family having a bank account. It is a drive that want the poor to get linked with formal banking institution, however

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there are several issues that need attention; opening a bank account is only the beginning and not the end of Financial Inclusion.

NageswaraRao (2010) described banker perception in his paper. He suggested that banks/ RBI should conduct awareness camps about financial inclusion to the bank staff. The negative thought of "Financial Inclusion is not profitable" should be erased from the minds of operating functionaries. Financial Inclusion is not always only social banking. There is lot of potential to get business from the people at the bottom.

Kodanet.et.al(2011) defined in their paper made an exhaustive examination of the status of financial inclusion in the seven northern states of India. As per their research 51% of farm households at all India level and 76.72% of farm household in NER are financially excluded.

From the article, "Role of Financial institutions in Financial Inclusion" The author Mr. Joseph Massey (2012) did a periodical study. He discussed that Financial Institutions have a very crucial and a wider role to play in fostering financial inclusion. Lack of financial literacy is the major hindrance in spreading financial inclusion. This has resulted in more than 50% of the savings of the household sector and of the financially illiterate getting drained on non-financial investment.

Arulmuran et al. (2013) reviewed the current status of financial inclusion in India and world in general and highlighted the measures taken by the government of India and RBI for promoting financial inclusion and the inter-linkage between social-economic welfare and financial inclusion. During last 40 years huge infrastructure that has penetrated even remote rural areas has been able to serve only a small part of the potential customers. In order to achieve the goal of total financial inclusion, policy makers, MFI, NGOs and regulators has to work together.

Sharma &Kukreja (2013) also described mere opening of no-frill accounts is not the purpose or the end of Financial Inclusion while formal financial institutions must develop strong linkages with small & weaker sections of the society.

Paramasivan and Ganeshkumar (2014) concluded that bank and financial institutions are the nerve system of the financial system of the country which meet the savings and utilization of resource in a proper manner. They suggested Government should take care about hours of operation because for daily wage earner visiting branch means loss of wages for a day. For providing financial services to unreached people, financial inclusion scheme cover all the needs of small and petty borrowers instead of providing a single loan only.

Sundaram & Sriram (2016) defined review of financial inclusion in India. They stated that poor person is not enjoying the financial services because they restricted to access the financial system. Authors described the awareness on financial inclusion as well as barriers to financial access. Conclusion of the study was that financial inclusion is the only hope for financial development of an economy.

## Research Methodology

The data collected for this study is mainly from secondary sources like journals, magazines, articles etc. Various studies on the subject were also considered while analysing the issue.

### Challenges of Financial Inclusion

- **Costly Process:** The Poor living even in urban areas do not fully utilize the financial services as they find these costly and unaffordable and thus, are deterred from accessing these services.
- **Financial Illiteracy:** Financial Illiteracy is also one of the challenges in the area of financial inclusion. Lack of basic education prevents the people from accessing financial services.
- **Lack of trust on Formal Sources:** Financial services are used only by a section of the population; the excluded sections are living in rural and poor areas where it is difficult to provide these financial services which are mainly relying on informal sector (moneylenders etc.) for availing finance that is usually at exorbitant rates. The main challenge of financial inclusion is to include the rural and poor people in the coverage area.
- **Lack of Documentary Proof:** A formal financial service requires various documents of proof regarding persons' identity, income, birth certificates, etc. But poor people generally do not have these documents and thus cannot access these services.
- **Less Income:** Low income level is another challenging area in the process of financial inclusion because people in low income segment have the notion that banks provide financial services only to the rich section.
- **Location:** Many people who live in remote localities find it difficult to reach the areas where banks are generally situated. Poor and rural sections may sometimes subscribe to these financial services initially, but may not use them as actively as others because of distance between the bank and residence, poor infrastructure etc.

- **Language Barrier:** Due to difficulty in understanding formal language, especially in the documents and many other formalities in banking procedures make people uncomfortable while using the financial services.
- **No Basic Education:** Many people, who lack basic knowledge and education, do not know the importance of financial products like insurance, finance, bank accounts, cheque facilities etc. It is also a challenge in the implementation of financial inclusion.
- **Lack of Infrastructure:** Many financial institutions are not able to justify on commercial grounds the establishment of broad-based infrastructure to serve poor households. So, they sometimes pull back to their physical presence in rural or poor areas and also place some restrictions to discourage the customers from the poor section of the society (e.g. high minimum account balances).

These institutions also pass the access cost on to the customers, who have to travel long distances to reach a bank and face long queuing time. As a result, many rural people reject financial institutions that serve the middle and upper classes.

## Conclusion

Financial Inclusion means extending basic banking services at affordable prices to the low income and disadvantaged groups of the society. The concept of financial inclusion has gained substantial importance in the Indian context. Financial Inclusion can be defined as the wide range of financial products and services to which everybody can have an access to which allows them to efficiently manage their finances, regardless of their level of income or social status. For achieving the financial inclusion, people need to have a minimum and, some basic financial literacy, financial skills, product knowledge and understanding. Bank nationalization was the first step towards financial inclusion in

India. Regional rural banks are created to take the banking and financial services to the rural people.

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# Financial Literacy, Access, Outreach and Utilization of Banking Services

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## Abstract

**Purpose** – Financial Inclusion can be facilitated through the provision of two essentials i.e. literacy and easy access. Knowledge can enable financial planning, inculcating saving habits and improving the understanding of financial products leading to effective use of financial services by the common man. The banks, as providers of financial services, have an inherent gain in the spread of financial inclusion and financial literacy, as it would help them capture the untapped business opportunities. Small customer is the key and banks should harness the business opportunities available at the bottom of the pyramid. Hence, banks must view the financial literacy efforts as their future investments. Creating awareness and knowledge about various products and providing these products at their doorstep would be the first step in capturing the accounts.

In this light, this study aims to analyze the role and utilization of banking services towards financial inclusion.

**Design/methodology/approach** – An extensive literature review approach has been undertaken to develop an insight of this study.

**Findings** – The ‘Digital India’ initiative, coupled with a payments infrastructure, is laying the cornerstone for a digital economy, keeping in mind the increasing willingness of people to use the internet, and the rising data traffic in the country. The digital banking offers numerous advantages largely riding on the fact that Indian consumers have shown tremendous preference for digital technologies, with growth rates for e-commerce as well as mobile phone adoption far outstripping rates in developed economies.

**Research limitations/implications** – The study is based on literature review which may not be sufficient enough to generalize the findings and draw conclusions.

**Practical implications** – The result of this study would help in forming policies as the banks need to focus on developing compelling products that proliferate active customer adoption. As the unbanked pool reduces over the next few years, due to both physical as well as digital initiatives, the next wave of growth is expected to come by focusing on the under banked.

**Originality** – The study is an effort to systematically determine the financial literacy, and the access and outreach in the country amongst people. It offers a beneficial source of information to the common man in the country who is still lagging behind when it comes to the financial investments and deals and other financial schemes and how they can fully utilize the services provided by the banking institutions and other financial centers.

**Keywords** – Financial Literacy, Outreach, Access, Utilization of Bank Services and Schemes

## Introduction

Financial inclusion is widely recognized as one of the most important catalysts in the growth and economic development of a country. Its contributions to GDP, individual and social welfare, and business creation and expansion – particularly small and medium enterprises are numerous.

India is a nation of 1.2 billion people, spread across 28 states and seven union territories. As per the Global Findex data for the year 2015, about 53% of the population either holds an account or is connected to banking facility through debit/credit card or mobile

phone, etc. A vast majority of our population, especially in rural areas, is still excluded from the safety net of easy access to finance.

Financial Inclusion provides availability of banking services at an affordable cost to disadvantaged and low-income groups. The banking and financial services include savings, deposits, borrowing, payment and remittance facilities. The main aim of financial inclusion is to get poor people out of the clutch of money lenders and moreover this is so because they do have ample financial support. This inclusion of poor into the mainstream is one of the important components of financial inclusion. Indeed,

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access to formal financial institutions allows poor households to expand consumption, absorb disruptive shocks, manage risks and invest in durable goods, health and education.

Thus, financial inclusion may be understood as providing access to a full suite of quality financial services to everyone who can use them, and making sure that people have the tools they need to manage their financial and economic lives. It goes beyond access to ensure usage and quality of products and services, and that customers can interact in the marketplace and throughout the supply chain.

The Center for Financial Inclusion defines financial inclusion as:

1. Access to a full suite of financial services Including credit, savings, insurance, and payments
2. Provided with quality Convenient, affordable, suitable, provided with dignity and client protection
3. And financial capability Clients are informed and able to make good money-management decisions
4. To everyone who can use financial services Excluded and underserved people
5. Through a diverse and competitive marketplace A range of providers, a robust financial infrastructure and a clear regulatory framework

Financial access helps the citizens to participate in the economic opportunities and derive the fruits of development which lead them to economic well-being. Financial education or literacy has been identified as a key factor influencing the demand side of the financial inclusion. Financial education as a key element to enhance inclusion is explored in detail and the national and international experiences in this regard are documented.

Financial inclusion can be facilitated through provision of two essentials i.e. literacy and easy access. Knowledge can enable financial planning, inculcating saving habits and improving the understanding of financial products leading to effective use of financial services by the common man. Banks provide financial

services have an edge in the spread of financial inclusion and financial literacy, as it helping them in capturing the untapped business opportunities. Small customer is the key and banks should harness the business opportunities available at the bottom of the pyramid. Hence banks must view the financial literacy efforts as their future investments. Creating awareness and knowledge about various products and providing these products at their doorstep would be the first step in capturing the accounts

Financial literacy is a must to understand financial planning and then become equipped to understand the importance of preparing household budgets, cash-flow management and asset allocation to meet financial goals. Hence, the foundation of financial literacy needs to be laid by inculcating financial prudence through education at the school level.

### Financial Inclusion: Status and Progress

There is a great emphasis by the policy makers on exploring ways and means to ensure higher inclusion rate of financially excluded segment of the society. There has been renewed global impetus to financial inclusion, particularly following the global financial crisis in 2008. Welfare enhancement is the main goal of financial inclusion hence this movement also garner support from political arena for the entire process.

In India, providing access to formal financial services and products has been a thrust of banking policy for several decades. The current trend of this movement has its great impact on the policy makers in India and they are also majorly taking wide range of measures to included the excluded segments. Accordingly, the Government of India and the Reserve Bank of India have initiated the innovative and dedicated measures for financial inclusion.. India's record of financial inclusion, despite the existence of a large and well-regulated financial system dominated by commercial banks, is poor.

#### Penetration of ATMs/Banks

ATMs per 100,000 adults	17.80
Branches per 100,000 adults	12.84
Deposit accounts per 1,000 adults	1337.89

Source: G20 Financial Inclusion Indicators, 2014: DataBank,  
The World Bank

**Percentage of Households Having Account or Connected Digitally**

	Having Account	Access to a mobile phone or internet at home
(% age 15+)	53.14	91.05
female (% age 15+)	43.13	90.84
male (% age 15+)	62.76	91.25
older adults (% ages 35+)	58.76	89.15
young adults (% ages 15-34)	47.48	92.96
income, poorest 40% (% age 15+)	43.91	83.80
income, richest 60% (% age 15+)	59.15	95.76

Source: G20 Financial Inclusion Indicators, 2014: DataBank, The World Bank

**Percentage of Households Availing Services of Financial Institutions**

	Saved at a financial institution	Borrowed from a financial institution in the past year
(% age 15+)	14.36	6.37
female (% age 15+)	10.13	4.93
male (% age 15+)	18.43	7.75
older adults (% ages 35+)	15.84	8.24
young adults (% ages 15-34)	12.87	4.48
income, poorest 40% (% age 15+)	7.48	4.93
income, richest 60% (% age 15+)	18.83	7.30

**Percentage of households connected digitally**

	Made or received digital payments	Made payment using a debit card	Made payment using a mobile phone	Made payment using the internet
(% age 15+)	22.24	10.67	4.70	1.23
female (% age 15+)	14.19	3.25	2.71	0.38
male (% age 15+)	29.98	17.79	6.61	2.04
older adults (% ages 35+)	23.12	10.20	4.90	1.05
young adults (% ages 15-34)	21.35	11.14	4.50	1.40
income, poorest 40% (% age 15+)	12.44	4.37	2.57	0.23
income, richest 60% (% age 15+)	28.61	14.76	6.09	1.88

Source: G20 Financial Inclusion Indicators, 2014: DataBank, The World Bank

## Role of Technology in Driving Financial inclusion

The banking sector has made rapid strides largely because of the rapid advancement of technology. Automated teller machines, internet and mobile banking, payment wallets, and other advancements have made significant improvements to consumer experience and have also helped banks widen their reach.

**Promotes Financial Inclusion:** Digital payment systems help overcome barriers to accessing financial services. Mobile money schemes, in particular, allow people who own a phone but do not have a bank account to make and receive payments. In the right environment, these systems can take off and reach massive size rapidly.

Digital finance can increase women's economic participation. In part, this is because digital payments can more easily be concealed by the recipient than cash, at least temporarily, which helps shift economic decision making in favour of women. Access to savings instruments also increases female empowerment and the consumption and productive investment of female entrepreneurs. Digital technologies can bring women and new entrants into the labour market, especially in white-collar occupations, by allowing people to work on different schedules or from different locations.

**Increases Efficiency:** The internet reduces the cost of many financial transactions by allowing their unbundling into separate components that can be automated or provided by specialized entities. A retail payment consists of pre-transaction, authorization, clearing, settlement, and post-transaction, each one again involving several steps. Specialized providers can execute individual steps, yielding economies of scale that translate into savings. Such service providers are becoming more widespread in developing and emerging markets.

**Governments can also lower the cost of financial transactions.** McKinsey estimated in 2010 that digital payments could save the government of India US\$22 billion per year. A large part of these savings comes from lower leakages and reduced fraud. Electronic payments create a clear digital record and can be traced, so the likelihood of funds not reaching the beneficiary or of duplicate payments or payments to "ghost" recipients who do not exist will be lower. Evidence from India also shows that using smart cards rather than cash for social security payments halved the incidence of demands for bribes.

Digital technologies have also **enabled governments to receive regular feedback from service users**, improving service quality. And the new technologies have enhanced the capacity of unaccountable governments for surveillance and control.

Technology not only enhances the competitive efficiency of the banking sector by strengthening back-end administrative processes, it also improves the front-end operations and helps in bringing down the transaction costs for the customers. Besides this, technology plays an important role in reducing cost of providing banking services, particularly in the rural and unbanked areas.

RBI has been actively involved in harnessing technology for the development of the Indian banking sector over the years. The Information Technology (IT) saga in Indian Banking sector commenced from the mid-eighties when the Reserve Bank of India (RBI) took upon itself the task of promoting computerization in banking to improve customer services, book keeping and Management Information System (MIS) to enhance productivity. RBI has played a pivotal role which has helped banks in achieving various objectives such as the introduction of MICR based cheque processing, Implementation of the electronic payment system such as RTGS (Real Time Gross Settlement), Electronic Clearing Service (ECS), Electronic Funds Transfer (NEFT), Cheque Truncation System (CTS), Mobile Banking System etc.

### 'Digital India'

The 'Digital India' initiative, coupled with a payments infrastructure, is laying the cornerstone for a digital economy, keeping in mind the increasing willingness of people to use the internet, and the rising data traffic in the country. The vision of the initiative, as outlined by the Government of India, focuses on the provision of infrastructure as a utility to every citizen, digital empowerment, services on demand and governance.

### 'Aadhar Card'

The technology-levered 'Aadhar' programme is likely to be the biggest disruptor in financial inclusion delivery, as innovations leveraging the 'Aadhar' card are expected to assist in broad basing the access and acceptance by financially excluded segments.

An 'Aadhar' card provides a 12-digit individual identification number, issued by the Unique Identification Authority of India (UIDAI), to serve as a proof of identity and address. This card is based on biometrics technology. In addition, the 'Aadhar' Enabled Payment System (AEPS), an open platform which is a bank-led model, allows online interoperable financial inclusion transaction at points of sale (Micro ATM) through the business correspondent of any bank using 'Aadhar' authentication. Over 880 million 'Aadhar' cards have been issued as on 21 July 2015. The programme aimed to achieve 100 per cent coverage by 2016. Following are some innovative initiatives based on demand side drivers that the 'Aadhar' programme is expected to propel:

### Direct benefits transfer (DBT)

The scheme was initiated to facilitate disbursements of government entitlements such as those under the National Rural Employee Guarantee Act (NREGA), social security pension scheme, handicapped old age pension scheme, etc. of any central or state government bodies, using 'Aadhar' and authentication thereof, as supported by UIDAI.

### Retail banking

The provision of these services is expected to encourage electronic retail payments and facilitate inter-operability across banks in a safe and secured manner.

### Analytics

'Aadhar' data is likely to create a huge opportunity for leveraging analytics for customising services and offerings.

### Consumer behaviour is changing towards rapid adoption of digitization

As the market has been exposed to innovative digital-based services that have been disruptive in nature (e-commerce players and e-governance services), it is now betting on changing client preferences to move from pricing (discounts) to convenience and service.

### Demographic dividend is likely to create a large digital savvy customer segment

India's demographic dividend is well suited to switch to digital behaviour, considering that the median age of an Indian is expected to be 29 years by 2020, with 900 million of the population falling in the age group of 15-60 years by 2025.

### The unpenetrated or financially excluded, along with GOI initiatives, offer natural growth opportunities

Around 50 per cent of the unbanked population is being aggressively targeted to be brought under the banking umbrella. Progressing towards this goal, around 160 million accounts have been opened under PMJDY, while INR 500 billion has been targeted to be transferred directly under DBT.

### Increasing mobile penetration and smart phone usage

Mobile penetration of around 90 per cent is likely to drive financial literacy as well as inclusion, as players are betting on mobile-based financial services. An increased smart phone proliferation, projected at 50 per cent by 2020, and falling handsets costs are likely to increase acceptance, better servicing as well as security.

## Financial Inclusion through Financial Literacy

Financial inclusion mainly focuses on the poor who do not have formal financial institutional support and getting them out of the

clutches of local money lenders. As a first step towards financial inclusion policy, Regional Rural Banks were set up. With the directive of Reserve Bank of India (RBI), Banks allow low income groups to open 'no frills accounts'. These accounts either have a low minimum or nil balance with some restriction in transactions. RBI has further relaxed KYC norms and restrictions on mobile banking. NABARD has also contributed significantly by introducing SHG- Bank linkage program, Kisan Credit Card (KCC) Scheme and has sanctioned Trainers' training program on financial literacy, farmers' service, village knowledge, mobile credit counseling centers and promotion of farmer education. It also includes providing facilities of micro insurance and micro pension.

Despite all the measures, banks are yet fighting to fulfill the financial inclusion dream. The main lacuna is due to the lack or spread of awareness. This gap can be bridged through financial literacy. Financial literacy is a prerequisite for effective financial inclusion, which will ensure that financial services reach the under banked sections of the society, leading to consumer protection through self-regulation. In India, the need for financial literacy is even greater considering the low levels of literacy and financial capabilities, and the large section of the financially excluded population.

In India, Reserve Bank of India (RBI), with the assistance of Organization of Economic Development (OECD) has issued a concept paper, promoted a financial literacy website, and set up credit counseling centers to provide advice on personal finance. RBI's 'Project Financial Literacy' aims at disseminating information about the central bank and basic banking concepts through various media like films, games, cartoons and comic books, and essay writing competitions, specifically target school and college going students. Various corporate banking organizations have also promoted financial literacy drive, mostly as part of their Corporate Social Responsibility.

A notable achievement has been made by Kerala by achieving total financial inclusion. At least one member of every household of the state has a bank account. Kerala now tops the Index of Financial Inclusion (IFI) prepared by RBI – estimated on the basis of data on banking penetration, availability of banking services and usage of the banking system among States.

Financial inclusion mainly focuses on the poor who do not have formal financial institutional support and getting them out of the clutches of local money lenders. As a first step towards this, some of our banks have now come forward with general purpose credit cards and artisan credit cards which offer collateral-free small loans.<sup>3</sup> The RBI has simplified the KYC (Know your customer) norms for opening a 'No frill' account. This will help the low income individual to open a 'No Frill' account without identity

proof and address proof. In any financial system, there are five basic functions to be performed, they are as follows:

- a) Facilitate trading, hedging, diversifying, and pooling of risks;
- b) Allocate resources;
- c) Monitor managers and exert corporate control;
- d) Mobilize savings; and
- e) Facilitate exchange of goods and services.

It is important that these aspects are covered as they form an integral part of the inclusive approach as well. Another important aspect of financial inclusion is formation of Self Help Groups (SHGs). SHGs are playing a very important role in the process of financial inclusion. SHGs are usually groups of women who get together and pool money from their savings and lend money among them. Usually they are working with the support of an NGO. The SHG is given loans against the group members' guarantee. Peer pressure within the group helps in improving recoveries. Through SHGs nearly 40 million households are linking with the banks.

#### Conclusion

The overall purpose of the research has been to understand the relationship between the financial literacy, its outreach, its accessibility and the proper utilization of the given and provided banking services.

Financial inclusion is a great step to alleviate poverty in India. But to achieve this, the government should provide a less perspective environment in which banks are free to pursue the innovations necessary to reach low income consumers and still make a profit. Financial service providers should learn more about the consumers and new business models to reach them. Financial inclusion is the road that India needs to travel toward becoming a global player. Financial access will attract global market players to

our country and that will result in increasing employment and business opportunities. Inclusive growth will act as a source of empowerment and allow people to participate more effectively in the economic and social process.

On another note, the study showed that despite the huge potential and well-established promise of digital financial services to drive financial inclusion, multiple challenges remain in making these sustainable. Banks need to focus on developing compelling products that proliferate active customer adoption. As the unbanked pool reduces over the next few years, due to both physical as well as digital initiatives, the next wave of growth is expected to come by focusing on the under banked.

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# Causal Relationship between Foreign Institutional Investments and Return on Bombay Stock Exchange in India

Sonali Yadav\*

## Abstract

Major issue of this research paper is whether foreign institutional investments cause returns or returns are caused by foreign institutional investments? To seek answer to this question, pair-wise granger causality tests were applied one by one between BSE\_RET, FIIP, FIIN, FIIS, RATIO\_FIIN, RATIO\_FIIP and RATIO\_FIIS. Unit root tests were also applied on all the seven series to check stationary. Time period selected for the study is April 2015 to March 2016. Results of the study brought out that there is no causality between BSE returns and Foreign Institutional Investments in India for the period under study.

**Keywords:** BSE, Granger Causality, Foreign Institutional Investments, Returns, Unit Root.

## Introduction

Economic growth of a country requires opening markets to attract foreign capital in Equity market, Boyd and Smith (1996) which in turn leads to long run economic growth, Levine and Zervos (1996, 1998). Growth happens not only in developed countries but also in the undeveloped countries of the world, Goudarzi & Ramanarayanan, 2011. It was not a choice for many countries to allow foreign capital into their countries rather in many cases they had to opt for this option as there were inflationary pressures, large current account deficits, currency depreciation, and increase in foreign debt or as a result of economic policy (Bansal & Pasricha, 2009).

For opening markets, liberalization became important and the need for liberalization advocated late back by McKinnon (1973) and Shaw (1973). Clark and Berko (1997) emphasized the benefits of allowing foreigners to trade in stock markets and outlined the “base-broadening” hypothesis stating that as foreign capital enters a market, it leads to an increase in the investor base and the consequent reduction happens in risk premium due to risk sharing.

## Indian Experience

India introduced large number of policy measures in the form of Liberalization, Privatization and Globalization (LPG) in 1991 to meet the problem of Balance of Payment Crisis (Gordon & Gupta, 2003). Before 1991, India focused on import substitution and current account deficit, which were financed largely through debt flows and official development assistance. Post liberalization, foreign institutional investors (FIIs) took a leap to shape India's

future from September 14, 1992. FIIs were allowed to invest in all the listed securities of Indian capital market in September 1992 (Kaur & Dhillon, 2010). Since then, it has resulted in effectively globalizing its financial services industry. Initially, pension funds, mutual funds, investment trusts, Asset Management companies, nominee companies and incorporated/institutional portfolio managers were permitted to invest directly in the Indian stock markets. Beginning 1996-97, the group was expanded to include registered university funds, endowment, foundations, charitable trusts and charitable. Till December 1998, investments were related to equity only as the Indian gilts market was opened up for FII investment in April 1998. Investments in debt were made from January 1999. Foreign Institutional Investors continued to invest large funds in the Indian securities market. For two consecutive years in 2004-05 and 2005-06, net investment in equity showed year-on-year increase of 10%. Since then, FII flows, which are basically a part of foreign portfolio investment, have been steadily growing in importance in India.

India has been a full supporter of FIIs but the investors, whether for domestic or international trade are guided by irrational, sentimental shocks (Lee, Shleifer and Thaler, 1990 and 1991) and sometimes they exhibit herding behavior too, though the tendency is quantitatively small, (Lakonishok, Shleifer and Vishny, 1992). There are also theoretical models in which there are irrational noise traders, and rational investors pursue positive feedback strategies, destabilizing the prices in the process (De Long, Shleifer, Summers, and Waldmann, 1990).

Foreigners trade in India due to informational asymmetry between domestic and international investors, Frankel and Schmukler (1996, 1998). When foreign capital enters into the country, it leads to the appreciation of stock which makes the host

country even more lucrative and then more foreign capital enters into the market, Bekaert and Harvey, 1998 (a, b) and Henry, 1997. Most of the developing countries of today have dismantled capital controls for attracting foreign capital, Maram Srikanth and Braj Kishore, 2012. The free flow of capital across the borders led to a transformation of 'Capital-scarce' countries into 'Capital-rich' countries, Bekaert and Harvey, 2000.

Investments through FIIs improves capital markets and thus they contribute towards growth but at the same time, in times of financial stress, they pose a serious threat due to the fact that they pull back their money in bad times. Despite the fact that FIIs exert negative pressures, capital mobility remains unchanged and almost stays stable in Asian Countries, Reisen and Yeches (1991). They exert a multiplying effect. FIIs always buy when the market rises and sell when the market falls. This behavior of buy-sell destabilizes the market as the sales by FIIs lead the stock market to fall further and their buys increase the stock market, Dornbusch and Park, 1995, Radelet and Sachs, 1998. Foreign investors buy when prices of financial assets are falling and sell when the prices are rising and hence, act as 'market makers', Gordon and Gupta, 2003. This leads to contagion effects on the economy but in case of India, it has always maintained tight control on capital flows, which was proven due to the absence of contagion effects on the Indian economy (Kletzer, 2004).

FIIs have always been a favorite topic for financial experts. Why? Is it because of the volatile nature of investor's sentiments or due to the fact that FIIs have a positive impact on the stock market, corporate transparency and governance norms? Or is it due to the fact that FII inflow lowers the cost of capital? Rajan and Zingales (1998) Or the Global diversification due to resource allocation becomes effective due to international risk sharing, Obstfeld's (1994). Or is it due to informational asymmetry between domestic and international investors, Frankel and Schmukler (1996, 1998). The focus of current research paper is on addressing the issue of what is the cause and what is the effect between FIIs and Returns? Is it the rate of return that the foreign institutional investors seek to earn by making investments in India? Or is it the other way round? Are the returns on Indian Stock market affected by FIIs? This research paper has tried to find out the causality between the two in order to know the direction of relationship existing between FIIs and stock market returns.

## Literature review

The study of literature has to be done from the moment FIIs were introduced in India as early as 1990s to understand the cause and effect relationship between FII flows and domestic stock market

returns. In 1990s, several research studies have explored the cause and effect relationship between FII flows and domestic stock market returns but the results have been mixed in nature, Tesar and Werner (1994, 1995), Bhon and Tesar (1996), and Brennan and Cao (1997) have examined the estimates of aggregate international portfolio flows on a quarterly basis and found evidence of positive, contemporaneous correlation between FII inflows and stock market returns.

Most of the studies generally point out the positive relationship between FII investment and movement of the National Stock Exchange share price index, some also agree on bidirectional causality stating that foreign investors have the ability of playing like market makers given their volume of investment (Babu and Prabheesh in 2008; Agarwal, 1997; Chakrabarti, 2001; and Trivedi and Nair, 2003, 2006).

In order to assess what cause what, first of all, it is important to know Relationship between FIIs and returns. Some studies have found out the evidence of positive and contemporaneous correlation between FII inflows and stock market returns, Tesar and Werner (1994, 1995), Bhon and Tesar (1996), and Brennan and Cao (1997). Many studies have found that equity return has a significant and positive impact on the FIIs and at the same time a possibility of bi-directional relationship between FII and the equity returns, (Babu and Prabheesh in 2008; Agarwal, 1997; Chakrabarti, 2001; and Trivedi and Nair, 2003, 2006).

The relationship between the flow of FIIs and security returns has been of perennial interest to investors and policy makers from time immemorial and there exist three theories to support this fact. First theory talks of 'pressure hypothesis' that trading by institutional investors affect stock prices contemporaneously, Harris and Gurel, 1986 and Shleifer (1986). Second theory talks of 'feedback trading hypothesis' that institutional investors have a tendency to be momentum traders, Davidson and Dutia (1989) and De long et al. (1990). And the third theory talks of 'information revelation hypothesis' that institutions have superior information which helps them to time their trades better, Lee et al., (1991).

Contrary results have been brought out by Anand Bansal and J.S. Pasricha (2009) in their study and they found out that there was no significant change in the Indian stock market average returns and at the same time volatility got reduced rather than rising after India opened its doors for foreign investments. Another study by Panda (2005) also shows FII investments do not affect BSE Sensex. Goudarzi & Ramanarayanan (2011) studied the co-integration and causality between the Indian stock market and foreign institutional investment in India during world financial turmoil of



2008 and found bilateral causality between the two. For a clear understanding of the concept, the literature review has been done in two heads, namely, Studies supporting the fact that returns cause FIIs and other studies supporting the fact that FIIs cause returns.

### Studies Supporting the Fact that Returns Cause FIIs

Many studies support the fact that FIIs are caused by returns. A recent study by Verma and Prakash (2011) established that BSE Sensex is a major pull factor for these flows into the domestic financial markets. Not only the returns bring FIIs into the country but there are many other factors also that are responsible for it like Inflation, Interest rate, exchange rate, market capitalization, returns on sensex, index of industrial production etc, Kaur & Dhillon, 2010.

Stock returns Granger cause FII has also been shown by Sundaram (2009) and Roy (2007). Agarwal, Chakrabarti et al (2003) have found in their research that the equity return has a significant and positive impact on the FII. Bhanumurthy and Rai, 2003 found the significance of equity returns as the main driving force for FII investment for the period 1994-2002. Chakrabarti (2002) brought forward that FII flows are effects of returns rather than the cause of it. One more study was done by Mukherjee, Bose and Coondoo (2002) to find out the cause-and-effect relationship between FII flows and returns on the Indian equity market and it was found out that FII flows to and from the Indian market tend to be caused by returns in the domestic equity market and this relationship was uni-directional. Mukherjee et al. (2002) and Kumar (2001) also confirmed that domestic equity returns are the cause of FIIs investment flows into the country. Sundaram (2009) found FII data to be I (0) i.e. it does not have a unit root at conventional level. It also gives positive unidirectional granger causality results i.e. stock returns Granger cause FII.

### Studies Supporting the Fact that FIIs Cause Returns.

Another viewpoint is that FIIs lead to returns and this very fact has been brought forward by Suresh Babu and Prabheesh (2008) in their study that equity returns are the cause of FIIs investment flows into the country. Another study by Rai and Bhanumurthy (2003) found out that there was a causal relationship between FII movement and Indian stock market. Their study finds return and volatility in the Indian stock market emerge as principal determinants of FIIs inflows. Causation effect from FII inflows to BSE return has also been shown by Gordon and Gupta in 2003. Chakrabarti (2001) conducted the pair-wise Granger Causality tests between FII inflows and returns on the BSE National Index and concluded that portfolio investment from FIIs was more an effect than a cause of market returns in India. In nutshell, there are a lot of studies which support FIIs cause returns and at the

same time, there are many studies saying returns cause FIIs.

### Objectives of the Study

As the literature on the direction of causation between FIIs and Returns are conflicting in nature, the current study is done keeping in view the following objectives:

- (i) To study the direction of causation from FIIs to Returns
- (ii) To study the direction of causation from Returns to FIIs.

### Rational and Scope of the study

There has always been a conflict in the minds of the researchers as to which of the two i.e. returns or FIIs is a major pull factor. This study can be taken as an initial step to take an intensive study into the factors affecting returns viz foreign institutional investments. But since the objectives are restricted to know the direction of causation only. The scope of the study is limited to know the causation effects only and the results of the study can be extended further to know as to the factors affecting returns and FIIs. With the surge of FIIs in the last financial year the period of the study has been taken to be 01-04-2015 to 31-03-2016.

### Research Methodology

Since the objective of the current research is to know the causation between returns and FIIs, the most traditional test to apply in order to study the cause and effect relationship is Granger (1969) causality test to understand leads and lags among integrated variables. But before running the granger-causality test, initial check of stationary was done. Two most common tests of stationary are unit- root(s) tests as proposed by Dickey and Fuller in 1979 and Phillips and Perron in 1988. But sometimes the results of this test are spurious, as the F test does not give right results unless the variables in levels are co-integrated. Better models have been developed to overcome this difficulty like tests for co-integration and co-integrating ranks. Error correction model has been developed by Engle and Granger in 1987 and the vector auto-regression error correction model by Johansen and Juselius in 1990.

The term foreign institutional investment denotes all those investors or investment companies that are not located within the territory of the country in which they are investing. These are actually the outsiders in the financial markets of the particular company. Foreign institutional investment is a common term in the financial sector of India.

Stock Market Returns are the returns that the investors generate out of the stock market. This return could be in the form of profit through trading or in the form of dividends given by the company to its shareholders from time-to-time.

In the present study, the researcher has done unit root tests on daily data from 01-04-2015 to 31-03-16. Closing prices of BSE and FIIP (Purchase), FIIS (Sales) have been taken for the above period. Returns were calculated from the closing prices and FIIN (FIIP-FIIS) was also calculated. Final data set consisted of the following series:

- i) BSE\_Ret (Calculated as Current Price/Last Day's price \* 100)
- ii) FIIP (Closing prices of Foreign Institutional Purchases)
- iii) FIIS (Closing prices of Foreign Institutional Sales)
- iv) FIIN (Difference between FIIP and FIIS)

Problem of unit root was checked at 'level' with the help of E-Views software, the result of which is as follows:

**Table 1: Result of Unit Root Test at 'level' on BSE\_RET, FIIN, FIIP, FIIS, RATIO\_FIIN, RATIO\_FIIP AND RATIO\_FIIS**

	BSE_RET	FIIN	FIIP	FIIS	RATIO_F IIN	RATIO_F IIP	RATIO_F IIS
t-Statistic	-14.20725	-6.293999	-10.50589	-11.14830	-15.37164	-16.25576	-15.39866
Prob	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Null Hypothesis for all the above series was that all series have unit a root. As can be seen that p value in the all the above series is less than .05, the null hypothesis is rejected and all the series are free from the problem of unit root and thus they are stationary at 'level'.

After the initial data checking and finding that the series are stationary at 'Level', pair-wise granger causality tests were conducted on the above series one by one. The results including hypothesis are as follows:

**Table 2: Result of Pair-Wise Granger Causality between BSE\_Ret and FIIN**

Null Hypothesis:	Obs	F-Statistic	Prob.
FIIN does not Granger Cause BSE_RET	235	0.82465	0.4397
BSE_RET does not Granger Cause FIIN		1.05601	0.3495

First hypothesis: H01 cannot be rejected and thus, FIIN does not cause BSE\_RET cannot be rejected.

Second hypothesis: H02 cannot be rejected and thus, BSE\_RET not cause FIIN cannot be rejected.

**Table 3: Result of Pair-Wise Granger Causality between BSE\_Ret and FIIP**

Null Hypothesis:	Obs	F-Statistic	Prob.
FIIP does not Granger Cause BSE_RET	235	1.29852	0.2749
BSE_RET does not Granger Cause FIIP		0.31551	0.7297

First hypothesis: H01 cannot be rejected and thus, FIIP does not cause BSE\_RET cannot be rejected.

Second hypothesis: H02 cannot be rejected and thus, BSE\_RET not cause FIIP cannot be rejected.

**Table 4: Result of Pair-Wise Granger Causality between BSE\_Ret and FIIS**

Null Hypothesis:	Obs	F-Statistic	Prob.
FIIS does not Granger Cause BSE_RET	235	1.8100 1	0.1660
BSE_RET does not Granger Cause FIIS		0.9110 8	0.4035

First hypothesis: H01 cannot be rejected and thus, FIIP does not cause BSE\_RET cannot be rejected.

Second hypothesis: H02 cannot be rejected and thus, BSE\_RET not cause FIIP cannot be rejected.

**Table 5: Result of Pair-Wise Granger Causality between BSE\_Ret and RATIO\_FIIN:**

Null Hypothesis:	Obs	F-Statistic	Prob.
RATIO_FIIN does not Granger Cause BSE_RET	235	0.35910	0.6987
BSE_RET does not Granger Cause RATIO_FIIN		0.34373	0.7095

First hypothesis: H01 cannot be rejected and thus, RATIO\_FIIN does not cause BSE\_RET cannot be rejected.

Second hypothesis: H02 cannot be rejected and thus, BSE\_RET not cause RATIO\_FIIN cannot be rejected.

**Table 6: Result of Pair-Wise Granger Causality between BSE\_Ret and RATIO\_FIIP**

Null Hypothesis:	Obs	F-Statistic	Prob.
RATIO_FIIP does not Granger Cause BSE_RET	235	0.4404 1	0.6443
BSE_RET does not Granger Cause RATIO_FIIP		0.0844 4	0.9191

First hypothesis: H01 cannot be rejected and thus, RATIO\_FIIP does not cause BSE\_RET cannot be rejected.

Second hypothesis: H02 cannot be rejected and thus, BSE\_RET not cause RATIO\_FIIP cannot be rejected.

**Table 7: Result of Pair-Wise Granger Causality between BSE\_Ret and RATIO\_FIIS**

Null Hypothesis:	Obs	F-Statistic	Prob.
RATIO_FIIS does not Granger Cause BSE_RET	235	0.3214 1	0.7255
BSE_RET does not Granger Cause RATIO_FIIS		0.3988 7	0.6715

First hypothesis: H01 cannot be rejected and thus, RATIO\_FIIS does not cause BSE\_RET cannot be rejected.

Second hypothesis: H02 cannot be rejected and thus, BSE\_RET not cause RATIO\_FIIS cannot be rejected.

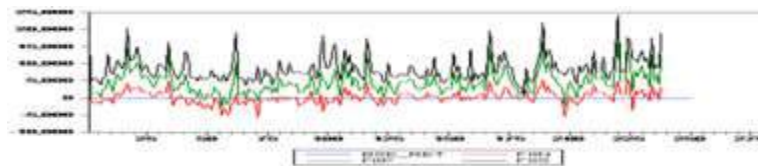
## Conclusion

Pair-wise Granger causality between BSE\_RET and FIIN, FIIS, FIIP, RATIO\_FIIN, RATIO\_FIIS, RATIO\_FIIP makes it very clear in the present study that the period between 01-04-2015 to 31-03-2016 has not shown any causation from BSE\_RET to other variable and

vice-versa. Thus, it may be concluded that for the said time period, BSE returns were not affected by foreign institutional investments in India. There may be other factors that affect BSE return, but they have not been considered in this research paper. The other aspect is that foreign institutional investments were not affected by BSE returns for the said period in India. In nutshell, BSE returns have not been able to bring foreign institutional investments in India. There is no causality between BSE returns and foreign institutional investments in India for the period under study. That makes us understand that there may be other reasons beyond returns which are deriving FIIS

## References

Annexure 1: BSE\_RET, FIIS, FIIP and FIIN for 01-04-2015 to 31-03-2016



Annexure 2: BSE\_RET, RATIO\_FIIN, RATIO\_FIIP AND RATIO\_FIIS



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# Accelerating the Growth of Financial Inclusion in India – A Conceptual Study

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## Abstract

Financial inclusion is the new epitome of economic growth and development which plays a major role in reducing poverty, boosting liquidity in the banking sector and also brings in more employment opportunities and thus, sustains a financially sound economy in nation. The purpose of this conceptual study is to analyze the current scenario of financial inclusion in India, critically examine the initiatives and schemes taken by Government and banks to encourage Financial Inclusion in India and also propose some suggestions to counter the challenges coming in way of Financial Inclusion in India. It was identified and analyzed that the Government of India has proposed many schemes out of which most of them are operational. However, a lot of hindrances are faced by the policy makers for proper implementation and its supervision. This study aims to help the policy makers and regulators to navigate the policies to root out the discrepancies for inclusive growth.

**Keywords:** Financial Inclusion, Inclusive growth

## Introduction

According to the study conducted by Shah, P. and Dubhashi, M. (2015) it was estimated that approximately 2.5 billion people around the world are deprived of getting access to financial products and services among which approximately one third represents the Indian demography. The study also took into consideration the mission of RBI to open approximately 600 million new client accounts.

The first financial inclusion initiative was taken by Dr. K C Chakrabarty (2011), the Indian Bank Chairman and Mangalam village was the first village in India where the residential and the whole community availed banking facilities. As per the Committee on Financial Inclusion (Rangarajan, C.) Financial inclusion can be enumerated as the procedure where one can get access to financial services and credit at a proper time period especially the destitute and the weaker section of the society at minimum possible cost.

Inclusive growth is the term which Government of India in its 11th five year plan (2007-12) focused on. Multiple initiatives of financial inclusion were emphasized and worked upon, especially by MSMEs. Government found small and medium enterprises, a major contributor of inclusive growth because of more employment generation and resulting in economic growth with its full potential.

Financial inclusion has been a prime initiative by the Prime Minister Mr. Narendra Modi to augment the skill level of people in

India. In this study initiatives have been taken to analyze the various factors contributing to the growth of financial inclusion in India which included the various measures taken by the government of India and Banks. Also excerpts from various sources are coagulated to consider the other exogenous factors responsible for the financial inclusion in the economy. Poor and vulnerable group will be empowered to have a bank account, save a bit of what they earn after satisfying their physiological needs. Poverty chain will break if poor will have access to enough finance. Employment, economic growth, reduction in poverty and number of people lying below poverty line can definitely be expected if population is able to access finance.

In this study efforts have been taken to highlight the various efforts taken up by the government and the private sector to infuse financial inclusion in the Indian economy.

## Review of Literature

Financial inclusion is the new epitome of economic growth and development which plays a major role in reducing poverty, boosting liquidity in the banking sector and also brings in more employment opportunities and thus, sustains a financially sound economy in nation. Financial Inclusion facilitators or drivers (in last five decades):

1. Strong banking networks and distribution channels in respect of easy accessibility of bank branch by majority of participants and segments of society. For example , branch banking, 24x7 banking, Sunday branches, kiosks, ATMs, green

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channel, single window banking, drive through banking, internet banking, mobile banking, etc.

2. Easy to use banking facilities
3. Deposit penetration in terms of FDs, RDs, KVPs, etc.
4. Financial literacy through running literacy programmes to the next level for example, compulsory banking education and operations in banking has been introduced in the curriculum of various schools in India especially in Gujarat. ICICI's digital village campaign has helped many villagers to go cashless and they have also implemented virtual classrooms and modernized classrooms to educate rural children to promote the banking operations. So the corporate governance initiatives taken by ICICI also helped in improving the financial literacy. Other banks like Bank of Baroda in association with Sikkim Manipal University have also launched customized courses for educating the society, there are many examples even AXIS bank have also launched their PG Degree in banking in association with Invertis University.
5. Not only money lending, but also educating masses in the form of debt counseling service is mantra of sustainable FI in India. For example, agri-lending branches are also responsible for agriculture counseling.
6. Full fledged spreading out of ATM network

Different studies and reports talked about disadvantaged sections of society who are excluded from formal financial system like youth, women, poor etc. World Bank (2012) took initiative to analyze Global Financial Inclusion (Global Findex) Database and provide in depth understanding of the same to researchers and policy makers. This Global Findex provided indicators that measure how adults in 148 economies save, borrow, make payments, and manage risk as per Demirciguc-Kunt, A., & Klapper, L. (2012). The indicators are constructed with survey data from interviews with more than 150,000 nationally representative and randomly selected adults age 15 and above in those 148 economies during the 2011 calendar year.

Studies have been conducted on the rural areas by Business Line and comprehensive reports have been submitted by the respondents stating that there are several loop holes in the implementation of the government schemes. Though they are implemented for benefitting the poor and the underprivileged but there is a certain degree of incertitude whether they are able to use that benefit or not. As per Singh (2016) there have been some recent reports of malpractices with respect to Jan Dhan accounts. In the above context, it may be very interesting to update ourselves with the grass root level challenges which are creating hindrances for financial inclusion.

In India, where approximately 25% of the country is illiterate (Census, 2011) and under the poverty line, ensuring the stability

of financial inclusion is a challenge. The two economic indicators, illiteracy and poverty, vary from state to state in India. Rural poverty is estimated to be above 30 per cent of population in places such as Assam, Bihar, Madhya Pradesh, Uttar Pradesh, Orissa, Jharkhand, Chhattisgarh, and Manipur (Planning commission Government of India (2014)). Rural poverty can be defined as lower farm income, lack of livelihood for sustenance, lack of manpower skills, under employment and unemployment. Thus, ensuring deposit operations in these under privileged accounts is a challenge. This study will help to unearth the main reasons for hindrances in the path of financial inclusion and also suggests some anecdote to ameliorate the situation.

## Objectives

- a) To highlight the various financial inclusion initiatives launched by the Indian government.
- b) To showcase how these initiatives have helped in financial inclusion with the help of secondary data compiled from various reports.
- c) To identify the various barriers faced in implementing the schemes.
- d) To provide suggestions to promote more financial inclusion initiatives in near future in India.

## Research Methodology

### Research Design

The research design comprised in the study is exploratory in nature as various data sets and reports have been studied to find out the implications of the financial inclusion initiatives taken by the government.

### Sample Design

Judgmental sampling has been conducted from piles of collected data reports. We have mainly taken secondary data available from the RBI's database on Indian economy, data sets from NABARD, SIDBI etc.

### Data and data collection

The study results have been mostly confirmed through secondary data collection. The data was collected mostly through websites of government and non-government agencies. However, this secondary data will provide the audience an estimate of the original figures.

### Reliability of the data

The reliability of the data can be exemplified through the government's approval and declaration statement and sign of the data officers who is/are responsible for the data collection.

## Findings & Discussion

**Objective Addressal-1:** To highlight the various financial inclusion initiatives launched by the Indian government.

**Objective addressal-2:** To showcase how these initiatives have helped in financial inclusion with the help of secondary data compiled from various reports.

Table-1: Initiatives taken by Government of India for Financial Inclusion	
Year	Milestones in Financial Inclusion in India
1969	Nationalization of Banks
1975	Establishment of Regional Rural Banks(RRBs)
1982	Establishment of NABARD
1992	Launching of Self Help Group(SHG) Bank Linkage Programme
1998	NABARD sets goals for linkage One million Self Help Group by 2008
2000	Establishment of SIDBI for micro credit
2005	Committee on Financial Inclusion
2007	Proposed bill on Micro Finance regulation introduced in Parliament
2011	Swabhimaan campaign
2012	Micro finance institutions(Development and Regulations) bill by Finance Department, Government of India
2014	Pradhan Mantri Jan Dhan Yojana along with many other schemes like Atal Pension Yojana, etc.

Source: Authors own work. Compiled from various circulars and reports published by RBI.

Table-2a: Financial Inclusion growth as per location							
	As per census 2001			As per census 2011			
	Total no of households	No. of households availing banking services	% banking services to Total no of households	Total no of households	No. of households availing banking services	% banking services to Total no of households	% Change
Rural	138,271,559	41,639,949	30.11%	167,826,730	91,369,805	54.44%	24.33%
Urban	53,692,376	26,590,693	49.52%	78,865,937	53,444,983	67.77%	18.24%

Source: Authors own work. Compiled from Financial Services Report. (2016).

From the above table-2a it is quite evident that the number of bank accounts have considerably increased over a decade the growth in the rural areas have been slow if we observe the growth have been only 24.33% over a period of 10 years i.e., from 2001-2011. Which shows a yearly average growth of 2.433% per year in

the rural sector? Thus it is very crucial for the government to look after this stagnant growth. On further investigation it was also unearthed that illiteracy and poverty are the grass root level causes of this stagnant growth.

Table-2b: Financial Inclusion in terms of no of Public sector Bank branches										
Date	Rural	% Change	Semi-Urban	% Change	Urban	% Change	Metropolitan	% Change	Total	% Change
2011	20,658.00	-	16,217.00	-	13,450.00	-	12,612.00	-	62,937.00	-
2012	22,379.00	8.33%	17,905.00	10.41%	14,322.00	6.48%	13,244.00	5.01%	67,850.00	7.81%
2013	24,243.00	8.33%	19,642.00	9.70%	15,055.00	5.12%	13,797.00	4.18%	72,737.00	7.20%
2014	27,547.00	13.63%	21,952.00	11.76%	16,319.00	8.40%	14,644.00	6.14%	80,462.00	10.62%
2015	29,634.00	7.58%	23,549.00	7.27%	17,387.00	6.54%	15,325.00	4.65%	85,895.00	6.75%

Source: Authors own work. Compiled from Financial Services Report. (2016).



Table-2c: Financial Inclusion in terms of no of Scheduled Commercial Bank branches										
Date	Rural	% Change	Semi-Urban	% Change	Urban	% Change	Metropolitan	% Change	Total	% Change
2011	33,923.00	-	23,089.00	-	17,629.00	-	16,255.00	-	90,896.00	-
2012	36,546.00	7.73%	25,834.00	11.89%	18,879.00	7.09%	17,274.00	6.27%	98,533.00	8.40%
2013	39,816.00	8.95%	28,546.00	10.50%	19,935.00	5.59%	18,092.00	4.74%	106,389.00	7.97%
2014	45,293.00	13.76%	31,530.00	10.45%	21,532.00	8.01%	19,275.00	6.54%	117,630.00	10.57%
2015	48,557.00	7.21%	33,766.00	7.09%	23,036.00	6.98%	20,498.00	6.35%	125,857.00	6.99%

Source: Authors own work. Compiled from Financial Services Report. (2016).

The financial inclusion in terms of increase in the number of public sector bank branches have been quite a rise after the financial inclusion initiatives taken up by the government of India especially the PMJDY in 2014 Which is evident from table-2b where we can observe that there has been a significant rise of 13.63% in the rural sector in 2014 in the number of public sector branches. Similarly, from table-2c we can observe that there has

been a significant rise of 13.76% in the rural sector in 2014 in the number of public sector branches. However, the dilemma remains whether the key performance indicators (KPIs) of the bank have also increased or not. Some KPIs like transactions per rural customer, number of accounts opened and still in operation, loan granted and EMIs cleared till date, etc. are the issues still to be explored.

Table-2d: ATMs deployed by PSBs during the last 5 years						
Date	Off-site ATMs	% Change Y-o-Y basis	On-site ATMs	% Change Y-o-Y basis	Total ATMs	% Change Y-o-Y basis
2011	20,032.00	-	30,201.00	-	50,233.00	-
2012	24,181.00	20.71%	34,012.00	12.62%	58,193.21	15.85%
2013	29,411.00	21.63%	40,241.00	18.31%	69,652.22	19.69%
2014	44,504.00	51.32%	65,920.00	63.81%	110,424.51	58.54%
2015	58,763.00	32.04%	69,902.00	6.04%	128,665.32	16.52%

Source: Authors own work. Compiled from Financial Services Report. (2016).

Table-2e: ATMs deployed by SCBs during the last 5 years						
Date	Off-site ATMs	% Change Y-o-Y basis	On-site ATMs	% Change Y-o-Y basis	Total ATMs	% Change Y-o-Y basis
2011	34,377.00	-	41,268.00	-	75,645.00	-
2012	48,141.00	40.04%	47,545.00	15.21%	95,686.40	26.49%
2013	58,254.00	21.01%	55,760.00	17.28%	114,014.21	19.15%
2014	76,676.00	31.62%	83,379.00	49.53%	160,055.32	40.38%
2015	92,191.00	20.23%	89,061.00	6.81%	181,252.20	13.24%

Source: Authors own work. Compiled from Financial Services Report. (2016).

Again, evidences prove that government of India have left no stones unturned in improving the banking system and promoting financial inclusion in the economy, if we observe table-2d & 2e, we will see that there have been a significant rise in the number of On and Off site ATMs in both public sector banks and scheduled commercial banks i.e., on year on year basis the growth in the percentage of ATMs is 58.54% in case of public sector banks and 40.38% in case of scheduled commercial banks. To elaborate

more, in case of the public sector banks, the number of off-site ATMs rose from 29,411 to 44,504 i.e., a growth of 51.32%. Similarly, the number of on-site ATMs rose from 40,241 to 65,920 i.e., a growth of 63.81%. Again, in case of the scheduled commercial banks, the number of off-site ATMs rose from 58,284 to 76,676 i.e., a growth of 31.62%. Similarly, the number of on-site ATMs rose from 55,760 to 83,379 i.e., a growth of 49.53%.

Table-2f: Financial Inclusion schemes and progress till date

S.no.	Name of scheme	Year of launch	Key purpose	Status
1	<b>'No-Frills' Account</b>	2005	The low cost or free of cost account is internationally considered to be helpful in expanding the access of banking services, particularly to the low income groups	More than 103 million No Frills Accounts were opened till March 2012.
2	<b>Kisan Credit Card</b>	1998-99	Allows farmers to have cash credit facilities without going through time consuming bank credit screening processes repeatedly.	As per the last GoI survey results published in Economic Growth 2008-09. Pp.102. the total number of KCC issued to the farmers was estimated to be 808.00 Lakhs with a CAGR of 10.30%. Which as per today's calculation is estimated to be
3	<b>General Credit Card</b>	2005	Based on the assessment of household cash flows, the limits are sanctioned without insistence on security or purpose.	
4	<b>DBT Scheme</b>	2013	to ensure that money under different developmental schemes reaches beneficiaries unswervingly and without any delay	
5	<b>Direct Benefit Transfer for LPG (DBTL)</b>			Union Cabinet decided to re-launch of Modified (DBTL) PAHAL Scheme from 15.11.2014 in 54 districts and in the entire country from 1.1.2015
6	<b>RuPay Card</b>	2014	a new card payment scheme has been conceived by NPCI to offer a domestic, open-loop, multilateral card payment system which will allow all Indian banks and financial Institutions in India to participate in electronic payments	
7	<b>Pradhan mantri Jan dhan Yojana(PMJDY)</b>	2014	universal access to banking facilities with at least one basic banking account for every household, financial literacy, access to credit, insurance and pension. The beneficiaries would get a RuPay Debit Card having inbuilt accident insurance cover of Rs.1.00 lakh. In addition there is a life insurance cover of Rs.30000/- to those people who opened their bank accounts for the first time between 15.08.2014 to 26.01.2015 and meet other eligibility conditions of the Yojana.	

8	<b>SHG-Bank Linkage Model</b>		RBI Encouraged the SHG-Bank Linkage Model, one of the largest micro finance models in the world, under which 4.79 million SHGs have been credit linked, covering 97 million poor households (till March 2012)	Active
9	<b>Swabhimaan Scheme</b>		to provide appropriate banking facilities to habitations having a population in excess of 2000 (as per 2001 census) by March 2012	74351 villages with population of above 2000 have been covered with banking facilities

Source: Authors own work. Compiled from Financial Services Report. (2016).

### 1. Objective addressal-3: To identify the various barriers faced in implementing the schemes.

#### Barrier-1: Fraud due to illiteracy

India has a literacy rate of 73 per cent with some States such as Bihar, Uttar Pradesh, Jharkhand, Madhya Pradesh and Rajasthan where the literacy rate ranges between 62 per cent and 70 per cent. The banks have devised ways to address limitations arising out of illiteracy by ensuring biometric access to bank accounts. However, Aadhaar seeding implies that some numerals have still to be punched in the machine to operate an account. As all the numerals are in English, only the banker or the business correspondent (BC) can punch in the Aadhaar number. Similarly, the messages that are received on mobile phones from banks are also in English and therefore the illiterate person has to seek someone's assistance to understand and interpret the message.

In each of the above cases, the privacy of an individual's bank balance is breached. This makes the illiterates, and population confined at home – females and elderly – vulnerable to malpractices. There are also anecdotes that enterprising BCs, to ensure ease of business, give the same Personal Identification Number (PIN) to all the residents in a single village. This can further compromise privacy and cause embarrassment to the authorities when direct benefit transfers through bank accounts are implemented on a larger scale. Therefore, a financial inclusion strategy sensitive to regional, demographic and gender related factors, needs to be carefully crafted.

Further, it needs to be considered that why despite extensive efforts from authorities, the Prime Minister's Jan Dhan Accounts (PMJDA) have underperformed. This could be, in addition to poverty and illiteracy, due to the type of products being offered to the unbanked population. Illustratively, recurring deposits are products which are more suitable to the salaried income group rather than people in informal sector whose incomes are uncertain, seasonal and unplanned.

#### Barrier-2: Making accounts operational

The opening of PMJDA was a tedious, yet extensive task. As in March 2014 just before PMJDA, total accounts on books of commercial banks were around 1 lakh crore. As can be imagined, given the limited resources in banking sector, opening of such large number of PMJDA within 24 months in far flung areas diverted the attention of bankers considerably.

In the opening of PMJDA, mainly public sector banks (PSBs) were ensuring that every unbanked household had a bank account. Now that 25 crore PMJDAs have been opened in the last two years, a bold achievement in history of financial inclusion, it needs to be considered whether it is also the responsibility of the PSBs to ensure that these are operational.

The next challenge is monitoring existing borrower accounts. Therefore, to ensure that the banking industry is robust and existing banking assets safe, given that heavy lifting has been done by PSBs, should the newly opened PMJDA in rural areas and some in urban too, in a sequentially planned manner be moved to rural and urban cooperatives?

Further, at present, there are a number of regulatory authorities that have a role to play in financial inclusion – RBI, NABARD, SEBI, SIDBI and MUDRA bank. It would be better to fix responsibility on a single regulatory authority to ensure that JDAs are operational. In this context, given that NABARD has an extensive presence across the country and was formed for the purpose of development of agriculture and rural areas, it should be made the nodal and accountable agency for financial inclusion. NABARD may not have the existing capacity, as of now, to accept the challenge but can certainly be prepared in a phased manner in next few years. It has been investing in modernizing, and infusing technology in cooperative institutions.

#### Barrier-3: Moneylender's influence

There is also need for further research on why the moneylender despite persistent efforts by institutions in formal sector has continued to luxuriate in the financial market. Money lenders

continue to account for nearly 30 per cent of total banking business. This then gives rise to an interesting related question: do interest rates matter? In modern times, if interest rate matters, why do people prefer to go to moneylenders, despite a network of banks, cooperatives, MFIs and SHGs and also improved financial literacy level? Is it simply due to ease of doing business or some other factors? This is one area which is required to be researched at ground level.

## Suggestions

**Objective addressal-4:** To provide suggestions to promote more financial inclusion initiatives in near future in India.

On the measurement challenges, first, it needs to be reckoned that financial inclusion concepts, policies, delivery models and implementation processes are still evolving. It is, therefore, essential that the policy for achieving total financial inclusion also keeps changing to adapt to the needs of the environment. This poses challenges for measurement of various financial inclusion initiatives as also their aggregation across activities, institutions, regions and so on. Statistical analysis of performance of financial inclusion initiatives and development of benchmarking standards can be quite complex. Second, while existing initiatives in measuring financial inclusion are commendable, there is a need for greater focus on the micro and distributional dimensions. Third, we should explore the need to change the focus of present information systems of banking business from traditional accounting model to customer centric business model. This would call for expanding the scope of the currently used measures of financial inclusion.

## Limitations

- a) Reliability of the data was a point of consideration while performing the analysis and making the discussion statements.
- b) Demography statistics collected from secondary sources are also quite not reliable as they were as per last census taken on 2011.
- c) The truth behind financial schemes is still concealed.
- d) Loopholes between the various levels of authority and beneficiaries of the schemes are very difficult to unearth.
- e) We often connect financial illiteracy with the poor population but the fact is urban population is also not very well aware and prepared of financial instruments and facilities. For e.g. College going students' needs assistance in cheque writing and white collar executives also require consultants and service providers for filling IT tax returns.

## Conclusion

From the above analysis and discussion, it may be inferred that the initiative of financial inclusion is still in embryonic stage. Though after the demonetization, an increase in deposits has taken place and also an increase in number of branches both in the public sector and scheduled commercial banking sector. However, according to the financial inclusion report by Thorat (2011), which comprehends that according to McKinsey predictions only 47% of the Indian household savings is tapped by the financial system. Therefore, 53% of the Indian households still need to be explored and tapped. The above evidence also suggest that the various banks operating in India have tried to reach the lower section of the economic strata. Again, to add on, inspite of government's initiative of zero documentation, the consumers are reluctant to approach banks. Even the credit and deposit requirements need to be tailored further. So, this study leaves a scope for researchers to explore the above arenas.

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# An Empirical Study on the effectiveness of Pradhan Mantri Jan Dhan Yojna (PMJDY) WRT nearby rural areas of Bareilly city

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## Abstract

Financial Inclusion may be called a movement, initiated by various committees of Reserve Bank of India, to achieve the goal of bringing the low-income and disadvantaged groups of economy into the ambit of banking and financial services. As part of the National Mission on Financial Inclusion, the Pradhan Mantri Jan-Dhan Yojana- PMJDY, is an integrated approach of Government of India to bring universal access to banking facilities to every house hold, improve financial literacy, access to credit, and insurance & pension facilities to every individual. A similar approach was launched in 2011 by the government, which was named “Swabhimaan”, to achieve socio-economic equality by bringing the under-privileged segments into formal banking. The focus of “Swabhimaan” program was towards provision of banking facilities to rural areas. The bank Sathi and bank Mithr model enabled the rural households to receive government subsidies and benefits directly. But PMJDY created a comprehensive approach, of including every individual and every household of the country, into the banking fold. The objectives of the study are:

1. To understand the role of government and banks in PMJDY scheme.
2. To study the implications of the scheme.
3. To explore the PMJDY implementation in nearby rural areas of Bareilly city. The objective of as “Pradhan Mantri Jan-Dhan Yojana”- PMJDY is to eradicate “financial untouchability”, which will eventually help to accelerate growth, fight poverty effectively and bring about social transformation.

**Keywords:** BBA (Basic Bank Account), Financial inclusion, PMJDY, Unbanked, Under banked

## Introduction

A democracy in its full sense gives every person in it the right to basic needs and access to institutional and economic reforms. Honorable Prime Minister Shri Narendra Modi, in his first Independence Day speech as the newly elected Prime Minister in May 2014, announced what created a buzz among all the people of democratic India - Financial Inclusion. As a step to include even the poorest of population of India, Prime Minister Modi introduced the Pradhan Mantri Jan Dhan Yojana on 28th August, 2014 in a bid to provide access to financial services such as Banking, Savings & Deposit Accounts etc. It can be said that there are two sides to the introduction of the scheme. First, it gave backward people, to whom banks were inaccessible, the confidence that their decision to bring Modi to the fore was a risk which paid off. And, it brought about Rs.384.11 billion, as on June 1, 2016, into the financial services sector, thereby, a positive sign in the declining banking department.

The scheme is run by the Department of Financial Services, Ministry of Finance, and on the inauguration day about 1.5 crore

bank accounts were opened. The Guinness Book of World Records recognizes this achievement and awarded a certificate of creating a world record saying “The most bank accounts opened in 1 week as a part of financial inclusion campaign”. During the week i.e., 23-29 August 2014; 18,096,130 accounts were opened.

In a run up to the formal launch of the scheme, the Prime Minister personally mailed the Chairman of all the PSU banks to gear up for the mammoth task of enrolling over 7.5 crore households and open their bank accounts. In his email, he categorically declared that a bank account for each household was a “national priority”. The scheme has been started with a target to provide ‘universal and clear access to banking facilities’ starting with “Basic Banking Accounts” with overdraft facility of Rs 5,000 after six months and RuPay Debit card with inbuilt accident insurance cover of Rs1 lakh and RuPay Kisan Card. In next phase, micro insurance & pension etc. will also be added

Pradhan Mantri Jan - Dhan Yojana  
(Accounts Opened as on 29.03.2017)

(All Figures in Crore

Bank Type	RURAL	URBAN	TOTAL	NO OF RUPAY	AADHAA R	BALANCE IN
Public Sector Bank	12.34	10.28	22.61	17.60	15.10	49265.50
Regional Rural Bank	3.98	0.66	4.64	3.54	2.80	11608.91
Private Banks	0.55	0.37	0.91	0.85	0.44	2098.02
<b>Total</b>	<b>16.87</b>	<b>11.30</b>	<b>28.17</b>	<b>21.99</b>	<b>18.35</b>	<b>62972.43</b>

*Disclaimer: Information is based upon the data as submitted by different banks/SLBCs*

The Prime Minister celebrating the response of the people said, "Let us celebrate today as the day of financial freedom." Moving over to the performance of the scheme, people turned out in large numbers towards the step of financial freedom and there was an overwhelming response. The number of accounts opened under the scheme reached 219 million (including 57 million zero balance accounts) by 18 May 2016. The amount of deposits rose to Rs 380.47 billion by April 2016. 19 lakh householders have availed the overdraft facility of Rs 2.56 billion by May 2016. Uttar Pradesh and West Bengal have got 29% of the total deposits under the scheme, whereas Kerala and Goa became the first states in the country to provide one basic bank account to every household

## Research Methodology

For the purpose of this study, Bhojipura, Abhaypur has been selected. The sample size for this survey is 100. The source of the data is primary and the tool used is a questionnaire.

The secondary research includes extensive reference to RBI reports & journals, research articles, and relevant websites.

## Objectives of the study

1. To understand the role of government and banks in PMJDY scheme.
2. To study the implications of the scheme.
3. To explore the PMJDY implementation in nearby rural areas of Bareilly.

## Literature review

Although most countries have a household-level income and expenditure survey which may include some questions on financial access, these surveys collect a broad range of household information, and rarely provide enough detail about financial inclusion to be adequate. Furthermore, household surveys are expensive, and generally only carried out every few years (Kneiding, Al-Hussayni and Mas, 2009).

According to Arundhati Bhattacharya, Chairman SBI, choosing a cost effective model for financial inclusion will require banks to significantly free up human resources, apart from using a banking correspondent model. With increase in financial inclusion and digitalization of banking, requirement of cash in the economy will reduce thereby helping in controlling unaccounted money in the economy.

According to Sinha (2013) urban co-operative banks have the potential to complete the objectives of financial inclusion. His study thrusts to make financial inclusion a successful business model, banks have to focus on lowering the cost of transactions by leveraging technology and offering more products of credit to the already included population.

Aishwarya Sigh, Manoj Sharma & Mukhes Sadana, (Feb, 2015) have concluded that assuming few teething problems, PMJDY is well positioned for success. Account access alone will not generate limited impact in the lives of the poor- it is account usage that is important.

Dr Kaur & Singh, (2015) have positioned financial inclusion as a business opportunity to banks and the launch of PMJDY strengthens the resolve that when coordination, dedication, commitment trust, satisfaction and continuity is provided by all constituents and stakeholders, a frame work of construct is created which acts as a dominant force for accomplishment of the mission.

G Madhukar is of the opinion that PMJDY is a mission to eradicate poverty and is expected to bring financial inclusion, financial stability and financial freedom to the poor and underprivileged people in rural, semi- urban and urban areas.

United Nations (2006), in its blue book titled "Building Inclusive Financial Sectors for Development", defines financial inclusion as the "access to the range of financial services at a reasonable cost for the bankable people and farms". Basic financial services include savings, short and long-term credit, leasing and factoring,



mortgages, insurance, pensions, payments, local money transfers and international remittances.

## Sample Survey & Results

A small sample survey of 100 households was conducted using a close-ended questionnaire. The survey was done in December 2016. The main purpose of the survey was to identify the awareness of the PMJDY scheme amongst the people of

Bhojipura, Bareilly. The scheme has been launched nationwide using various types of media, awareness programs by banks, distribution of literacy materials, help of bank mitr, and many more. But the survey has revealed facts where 72% of the households are not aware of the scheme. The main reason being lack of education, fear of approaching banks, and mainly lack of identification cards. Most of the Bhojipura residents are migrants and the establishment of identification is the major barrier.

Distribution of respondents according to employment		
Part time/full time	30	29.7
Contractual	5	5.0
Business/self employed	65	64.4
Unemployed	1	1.0
	101	100.0

There is employment potential in the area, which implies almost every respondent is employed and is earning. Most of the households have more than one earning member but do not have a

bank account.  
banks.

### Distribution of savings to bank and other available sources

	Yes	% of respondents
<b>Usage of savings</b>		
Deposit in bank	38	37.6
Buy gold	0	0.0
Keep cash	4	4.0
Spend on consumer goods	15	14.9
No savings	32	31.7
Not answered	12	11.9

Out of 100 households only 38 are having a bank account. 31 % of the households do not have savings in spite of earning. Constraints for financial inclusion are: Lack of awareness about

financial system and products/services, inappropriate products, feasibility of products, irregular and/or less income, lack of trust in banks.

### Awareness of Government schemes and Usage of mobile for payments & remittances

	Awareness of govt schemes	%	Usage of mobile	%
YES	28	27.7	100	99.0
NO	73	72.3	1	1.0
	101	100.0	101	100.0

There is 100% usage of mobile in the area for all purposes of communication. But the residents are not availing it for mobile banking concept because of lack of awareness. The table very clearly shows, that 72% of them do not know about the

government schemes, whether it is PMJDY or any other. The bank Mitr or business correspondent model of banks for financial inclusion is not being employed for effective inclusion, in this area.

#### Ranking of parameters of bank account

	Bank	%	Personal	%	Credit
Not at all important	17	16.8	62	61.4	78
Important	55	54.5	27	26.7	14
Very important	29	28.7	11	10.9	8
Not answered	0		1	1.0	1

The parameters of accessibility to bank and services of bank were rated on basis of importance. 54% of the respondents felt that having a bank account is important and 17% felt bank account is not important because there are parallel modes to keep cash and remit cash. Out of the 100 respondents 29% marked bank account as very important for savings and remittances. 62% of

respondents mentioned loan from bank as unimportant because there are money lenders and friends who can help them and who are easy to approach without any formal documentation. But 26% felt that loan from banks is easier because there is documentation which is a proof of loan.

Key observation of Bhojipura Survey	
Parameters	% of no awareness/ Not having
Not aware about the PMJDY	72.28
Not aware of the Rupay Debit card	95.05
Not aware that banks are opening 'no frills' or 'zero balance' account, with minimum paper work	62.38
Not having Insurance	62.38

## Conclusion

The PMJDY scheme of the government, with support from all banks and participation of many supporting agencies, is trying hard to bring in the under privileged into the financial inclusion circuit. The major barriers to financial inclusion, as identified in the survey of Bhojipura, Bareilly are lack of financial understanding or information, poor people's low income and erratic cash flow, lack of suitable products and processes from formal financial service providers that cater to the needs of poor people. Most of the schemes of government for financial inclusion focus on rural areas, but the PMJDY scheme intends to focus on rural as well as urban areas. With the help of bank Mithr or business correspondents, banks need to make available the

services in the urban areas. It is important to note that the inclusion process can be expedited by many more financial literacy programs.

All the benefits such as financial inclusion, financial stability and financial freedom are expected to get, through the PMJDY, to the poor and the underprivileged people in rural, semi-urban and urban areas.

Banking on Change should inspire and catalyze further action by governments, banks and donors alike to break down the barriers to financial inclusion for poor people.

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# Improving Brand Performance in VUCA World

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## Abstract

The purpose of paper is to identify consumer preferences, behavioural responses and consumption patterns by dividing a market into several homogeneous sub-markets. Researcher used focus groups of 30 consumers for each of the 50 brands. The finding shows that 11 consumer clusters extracted by using the K-means clustering and the performance of each of the clusters aligned with the specific brand function (high or low as shown). Other findings show that the detailed profile of the 11 broad Consumer typologies extracted across all the 50 brands.

**Key words:** Market Segmentation, Branding, Brand function, K-means clustering

## Introduction

It has long been accepted that consumers differ widely in their individual brand choices, as noted. But can such heterogeneous consumers be classified into relatively homogeneous subgroups or segments which tend to buy different selections of brands? Putting it the other way round, how far are brands in the same category bought by different kinds of consumers?

Customers are key players in making or breaking a brand. Hence it is important to identify their needs. Companies need to look at both-increase market share as well as customer share as they build their brands. In this context consumer profiling is important as consumers; need to be segregated into relevant groups to ensure tailoring of the marketing offerings to their needs to make certain that a right value proposition reaches the right consumer. Segmentation of consumers and creation of appropriate targeting strategies is a vital marketing function.

The purpose of market segmentation is to identify consumer preferences, behavioural responses and consumption patterns by dividing a market into several homogeneous sub-markets. Identification of the appropriate premise of segmentation can then be made, thus making the best of finite resources. Therefore it becomes significant to understand how consumers make brand/product decisions which are critical for brand managers, especially in conditions where there are many brands in the market competing for the same customers.

This paper attempts to divide consumers into specific segments identified on the basis of K-means clustering and provide complete market segment information for a set of 50 brands chosen across India, where we use a set of 6 brand functions to profile the consumers into one of 11 categories based on the

brand's performance (from a consumer perspective) across a strategic brand function.

The objective is to be able to classify each consumer into one of the 11 specified segments so that organisations can formulate a targeting strategy to: 1) improve brand performance across the function where it appears lacking or 2) customize the product or marketing message to suit the individual consumer for maximum product adoption. This can help to identify smaller, better defined-targets or sub-markets for enhancing business competitive advantage.

Nevertheless, we argue that customer centric brands represent one effective means for firms to achieve better alignment of their brands with the customers. To become a successful customer centric brand, however, the brand management function must identify determinants of customer centricity in a brand. Our previous research in this direction identifies six functions catering to customer centricity. Using this we have earlier created a Brand Customer Centricity Calculator (BCCS). The Brand Customer Centricity score is further used to create separate consumer clusters, using k-means clustering. Consumer profiles across respective clusters are further used to develop strategies for brand positioning and targeting.

Consumer segments are created on the basis of each consumer's response with respect to a specific brand function. This information has two roles to perform for the organizations-

1. Creation of a relevant marketing strategy to ensure good and desired marketing responses from each cluster, For instance- If a cluster depicts a set of consumers weak on Consumer Brand Knowledge (CBK), but high on Consumer Brand Emotion (CBE), the company has to define strategies to

increase CBK which can be done by- creation of appropriate marketing communication messages.

2. Identification of the best performing consumer cluster and then attempting to harvest it for maximum return on investment (ROI).

In this context, we have also explored the dimension of brand customer centricity. A more customer focused brand enables companies to create and share deep customer insight within and beyond the company. Hence it is vital for organizations to establish a healthy and purposeful consumer-brand relationship. This can be achieved by building strong customer centric brands thereby crafting numerous ways to develop a strong and purposeful positioning in the target segment. The companies can design well directed marketing efforts and plan their promotional tool kits to cater to the specific clusters in the segments. The clusters identified here demonstrate measurability, so that segment size and potential can be measured. In this case, we use cluster performance across specific brand functions as the premise for positioning the final brand campaign.

This study focuses on clustering the customers into homogeneous or harmonized segments which can lead to a better understanding of customers, greater competitive responsiveness and more effective resource allocation. By studying the consumer profiles, aspects of the brand positioning which need strengthening can be identified separately for respective consumer groups and brand campaigns can be created focusing on strengthening the consumer's perception pertaining to a brand.

## Literature review

### Branding

A brand must express and reinforce the underlying values and personality of the product or service it represents. A brand is a set of expectations and a promise that those expectations will be met. The execution of the brand strategy must be devised to apply a specific style, tone and image that reflects the brand's core values and attributes on a consistent basis. These brand attributes are designed to build an emotional connection with the customer and influence how customers perceive, understand and interact with a business. Evolving brand strategy comprises the creation, re-positioning and integration of the brand into the company's customer experience.

In this context, we explore the dimension of Customer Relationship Management. CRM advances marketing's mission on both fronts. It is a management approach that enables organizations to identify, attract, and increase retention of

profitable customers by managing relationships with them and further identifying strategically significant customers.

Increased competition reduces brand loyalty making the job of the marketers more complex. Further, customers also become indifferent to the myriad marketing messages being thrust upon them. Hence, the study focuses on developing greater customer centricity in brands. An increasing number of organizations have specialized in meeting the increased complexity of individual needs. As more and more consumers gain access to powerful new media and information tools to compare brands, products and services, organisations in a range of industries are responding by developing advocacy-based strategies and practices. The strategy behind customer advocacy is simple.

Brand identity is a vague but vital aspect of a company and now is considered to be one of the most important factors in the strategic positioning of products in the minds of the consumers. Nevertheless, the single most important public of a brand is its end consumers, who are drowning in the overwhelming abundance of brands and brand communication. Brand identity and image significantly contribute to the degree of customer centricity of a brand.

## Campaign Management

Campaign management aims at segmenting the customers and developing targeting and positioning strategies for each segment, defining products that match the customer's requirements, help in pricing and selecting distribution channels for those products and finally implement communication strategies to build brand awareness, generate interest and motivate purchase. This can provide an opportunity to segment consumers on the basis of their interactions with the organization, rather than those based on simple demographics. Appropriate targeting strategies can be developed for different consumer segments.

## Research methodology

For the purpose of this research study, we used focus groups of 30 consumers for each of the 50 brands (it was not always mutually exclusive). The respondents were asked to rate the attributes against each of the six brand functions for the given brand.

## Sampling of 50 brands

For the purpose of this research study the 50 brands were chosen from the India's Most Trusted top 100 brands. The list had the representation from the various product and service categories consisting of a range of FMCG products, banking sector,

automobile, consumer durables etc. The sampling of the brands under various categories has been explored in the subsequent paragraphs.

The Most Trusted Brands survey conducted by Brand Equity and Nielsen (YEAR 2010) was used as basis for brand selection. 300

brands (217 consumer products and 83 service brands) were finalized. Each brand was then evaluated on seven parameters as referred in (Table 1 on brand attributes) and Top 100 brands were extracted.

Brands were rated on the following attributes-

**TABLE 1: Brand Attributes**

S.NO.	ATTRIBUTES
1	Always maintains a high level of quality.
2	Is worth the price it commands.
3	Is a brand I would surely consider if I have to buy the product
4	Has been a popular brand for many years.
5	Has something that no brand has.
6	Evokes a feeling of confidence and pride among its users.
7	Is a very special brand with unique feelings associated to it.

## K-means clustering

Product brands were profiled on basis of 6 functions and suitable consumer segments were extracted. Cluster Analysis, also called data segmentation, relates to grouping or segmenting a collection of objects (also called observations, individuals, cases, or data rows) into subsets or "clusters", such that those within each cluster are more closely related to one another than objects assigned to different clusters. Hence, objects in a cluster are similar to each other. They are also dissimilar to objects outside the cluster, particularly objects in other clusters. Clustering algorithms function such that intra cluster similarity is the maximum and the inter-cluster similarity is minimum. Clustering also has applications in the field of marketing segmentation. The manuscript demonstrates the use of cluster analysis, using K-means clustering for the extracting the 11 different consumer clusters.

Considering that the BCCS uses the concept of weighting from our previous research to encode the relative importance of the brand function variables, we use the Brand Customer Centricity score to create different consumer segments which can be targeted separately. This is done using the k-means clustering algorithm, SPSS 16.0. The clustering algorithm is initiated by creating k-different clusters and subsequently the distance measurement between each of the sample, within a given cluster, to their

respective cluster centroid is calculated. We use Euclidean distance measure for our study. After obtaining initial cluster centers, the procedure, (i) Assigns cases to clusters based on distance from the cluster centers and (ii) updates the locations of cluster centers based on the mean values of cases in each cluster. These steps are repeated until any reassignment of cases would make the clusters more internally variable or externally similar. The initial cluster centers are the variable values of the K well-spaced observations. The final cluster centers are computed as the mean for each variable within each final cluster. The final cluster centers reflect the characteristics of the typical case for each cluster

Clustering the customers into homogeneous or harmonized segments can lead to a better understanding of customers, greater competitive responsiveness and more effective resource allocation. By studying the consumer profiles, aspects of brand positioning which needs strengthening can be identified separately for respective consumer groups and brand campaigns can be created focusing on strengthening the appropriate brand function, for each consumer group.

The positioning in the target segment can be crafted in numerous ways. The companies can design well directed marketing efforts and plan their promotional tool kits to cater to the specific clusters in the segments. The clusters identified here demonstrate measurability, so that segment size and potential

can be measured. In this case, we use cluster performance across specific brand functions as the premise for positioning the final brand campaign.

## Results

### One sample cluster performance is shown

Four distinct consumer clusters are extracted. Maximum numbers of cases are in cluster 3, a consistent cluster centroid hovers at that position, thus they can be the primary target segment for the company. The table on distance between final cluster centers. The table shows the Euclidean distances between the final cluster centers. Greater distances between clusters correspond to greater dissimilarities. Hence, Clusters 1 and 4 are most different and Clusters 2 and 3 are similar.

The positioning in the target segment can be crafted in numerous ways. The companies can design well directed marketing efforts and plan their promotional tool kits to cater to the specific clusters

in the segments. The clusters identified here demonstrate measurability, so that segment size and potential can be measured. In this case, we use cluster performance across specific brand functions as the premise for positioning the final brand campaign. The consumers in cluster 1 and 2, represent high consumer brand knowledge but low emotional connection, so companies can focus their promotional campaigns towards increasing the emotional quotient in their advertisements, increasing the visual appeal in the advertisements and focus on consumer engagement strategies, so that the stakeholders form a favorable opinion and get connected more emotionally by focusing on the brand attributes of generating excitement, likeability, appeal etc. Similarly, the clusters 3 and 4 represent high emotional connection and low consumer brand knowledge. Thus the organization should focus on increasing the brand knowledge of this set of consumers, in order to create a stronger brand value for them. This can be done by focusing on the delivery benefits, innovative and intelligent features of the brand, thereby stimulating greater brand loyalty and trust.

**TABLE 2: Consumer rating of brands across different functions**

Custo mer	Emotio nal connec tion		My life style and Ima ge	0.1 2	My percept ion	0.1 1	Consum er Brand Knowle dge	0. 2	Tru st	0.1 1	Respons ible towards custome r	0.1 1	BC CS
C1	37	7.77	5	0.6 2	21	2.3 1	42	8. 4	24	2.6 4	22	2.4 2	24.1 4
C2	31	6.51	6	0.7 2	23	2.5 3	46	9. 2	24	2.6 4	22	2.4 2	24.0 2
C3	44	9.24	9	1.0 8	30	3.3 54	10 .8	32	3.5 2	23	2.5 3	30.4 7	
C4	39	8.19	13	1.5 6	28	3.0 8	51	10 .2	33	3.6 3	25	2.7 5	29.4 1
C5	42	8.82	11	1.3 2	34	3.7 4	57	11 .4	34	3.7 4	25	2.7 5	31.7 7
C6	49	10.2 9	13	1.5 6	35	3.8 5	57	11 .4	30	3.3 26	2.8 6	33.2 6	
C7	48	10.0 8	4	0.4 8	22	2.4 2	41	8. 2	21	2.3 1	16	1.7 6	25.2 5
C8	44	9.24	8	0.9 6	26	2.8 6	40	8 26	2.8 6	21	2.3 1	26.2 3	
C9	41	8.61	9	1.0 8	25	2.7 5	47	9. 4	19	2.0 9	24	2.6 4	26.5 7
C10	44	9.24	12	1.4 4	23	2.5 3	39	7. 8	24	2.6 4	17	1.8 7	25.5 2



C11	45	9.45	11	1.3 2	22	2.4 2	38	7. 6	23	2.5 3	23	2.5 3	25.8 5
C12	46	9.66	10	1.2	21	2.3 1	43	8. 6	24	2.6 4	21	2.3 1	26.7 2
C13	47	9.87	11	1.3 2	27	2.9 7	43	8. 6	23	2.5 3	21	2.3 1	27.6
C14	40	8.4	11	1.3 2	24	2.6 4	26	5. 2	25	2.7 5	23	2.5 3	22.8 4
C15	42	8.82	10	1.2	25	2.7 5	39	7. 8	25	2.7 5	19	2.0 9	25.4 1
C16	52	10.9 2	10	1.2	27	2.9 7	38	7. 6	23	2.5 3	14	1.5 4	26.7 6
C17	44	9.24	7	0.8 4	27	2.9 7	53	10 .6	25	2.7 5	21	2.3 1	28.7 1
C18	50	10.5	12	1.4 4	30	3.3	53	10 .6	30	3.3	23	2.5 3	31.6 7
C19	48	10.0 8	10	1.2	25	2.7 5	42	8. 4	24	2.6 4	22	2.4 2	27.4 9
C20	44	9.24	4	0.4 8	23	2.5 3	40	8	28	3.0 8	23	2.5 3	25.8 6
C21	40	8.4	7	0.8 4	23	2.5 3	35	7	22	2.4 2	20	2.2	23.3 9
C22	38	7.98	6	0.7 2	25	2.7 5	40	8	22	2.4 2	20	2.2	24.0 7
C23	37	7.77	8	0.9 6	27	2.9 7	42	8. 4	20	2.2	16	1.7 6	24.0 6
C24	45	9.45	8	0.9 6	24	2.6 4	45	9	27	2.9 7	24	2.6 4	27.6 6
C25	40	8.4	6	0.7 2	24	2.6 4	51	10 .2	18	1.9 8	21	2.3 1	26.2 5
C26	47	9.87	10	1.2	22	2.4 2	43	8. 6	25	2.7 5	23	2.5 3	27.3 7
C27	49	10.2 9	9	1.0 8	17	1.8 7	39	7. 8	29	3.1 9	22	2.4 2	26.6 5
C28	43	9.03	11	1.3 2	21	2.3 1	34	6. 8	20	2.2	22	2.4 2	24.0 8
C29	39	8.19	13	1.5 6	28	3.0 8	51	10 .2	33	3.6 3	25	2.7 5	29.4 1
C30	43	9.03	4	0.4 8	22	2.4 2	35	7	32	3.5 2	15	1.6 5	24.1

This paper attempts to create a framework for consumer segmentation and provide complete market segment information for a set of 50 brands across chosen across India, where we use a set of 6 brand functions to profile the consumers into one of 11 categories based on the brand's performance (from a consumer perspective) across a strategic brand function.

The objective is to be able to classify each consumer into one of the 11 specified categories and then formulate a targeting strategy to 1) improve brand performance across the function where it appears lacking or 2) customize the product or marketing message to suit the individual consumer for maximum product adoption. This can help to identify smaller, better defined-target sub-markets for enhancing business competitive advantage.

The analysis shows the 11 consumer clusters extracted using K-means clustering and the performance of each of the clusters aligned with the specific brand function (high or low as shown). Another analysis shows the detailed profile of the 11 broad Consumer typologies extracted across all the 50 brands. Organisations can develop appropriate targeting strategies by identifying the brand function on which the brand performance is weak. Strengthening of the performance of the brand on those functions will subsequently aid an increase in the degree of customer centricity of the respective brand.

## Implications

Segmentation of consumers becomes a significant dimension of the Strategic Planning process to be followed towards competitive Brand Positioning. Organizations can make use of the information available about their prospective and current customers by structuring and mining the vast volumes of data available about them and formulating strategies for consumers.

A match between the consumer profile and targeting strategies can be created- for instance.

- (i) The Skeptical Anxious consumer can be targeted by enhancing product related awareness by a continuous bombardment of information. These are consumers who are interested in trying the new product; they just need a significant push. Well directed advertisement campaigns will keep the consumer interest level high-the continuous reinforcement will strengthen the brand message to a point that the consumer is driven to make the purchase.
- (ii) The Realistic Analytical consumer will benefit from advertisement campaigns demonstrating distinctive product style and design, stimulating aesthetics, thereby drawing adequate consumer attention.

- (iii) The Non Associated Dysfunctional consumers will benefit from marketing messages which break the clutter of information available, by catching the consumer attention which can be done when the organisation designs a marketing mix to create trust and build value.
- (iv) The Proactive Confident Personas and Uninformed Emotional Simpletons need access to substantial volumes of brand and product related information where, the consumer knowledge level can also be enhanced by increasing the frequency of interaction between brand and consumer.
- (v) The Unimpressed Ambivalent Enthusiast consumer and the Conservative Nonbelievers can be targeted by marketing messages which focus on elevating brand value and brand worth rather than discussing the brand's attributes or features, thereby eliciting positive judgements and feelings.
- (vi) The Consumer/Brand Evangelists need to be included in reward and loyalty programs to further strengthen the consumer-brand relationship and making these consumers loyal for life.
- (vii) The Fanciful Smart Loyalists, Fanciful Smart Users and Conservative Mavens can be treated to emotional experiences where they get exposure to a brand; experiences which touch the very core of the individual, strike an emotional chord with the consumers, by reflecting the consumer self-concept in the brand and its characteristics.

Hence, brands will benefit substantially by being customer centric and devising relevant targeting strategies for the appropriate consumer profile, thereby developing deeper consumer-brand appreciation, acceptance and understanding. Considering that the same would also be an intrinsic component of any marketing message, it is in identifying the right brand-attribute mix that improves brand performance across respective brand functions that lays the key to the organizational brand success story. Brands which are intelligent can move ahead to gain iconic status-they just need to be customer-centric.

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# Business Diplomacy: Cross Cultural Sensitivity & Role Of Leadership

Ms Riya Gangwar\*

“Diplomacy is more than saying or doing the right things at the right time, it is avoiding saying or doing the wrong things at any time”.

- Bo Bennett

As a kid I watched my father as he sought to maintain relations inside and outside the house as to pertain to peace, trade, economics, human rights and the environment. I observed him as he sought to establish common grounds with his colleagues. I studied him. I even had his morning routine written down. Every morning before he went to work, he would sit down on the dining table, flip up the newspaper, go through it from front to back and then he would go through the news, international to national to local. As a kid, I didn't quite understand why he did all this, and so I asked him, “dad, why do you do all these things?” and he would always answer me back with, “if you want to be successful in something, you have to first understand it”. In my pre-teen years that didn't quite resonate, so I did what any kid would do to mimic him. I would read the same newspaper, watch the news and even fill out the occasional crossword. But it wasn't until I started my first job when I finally got what my father was trying to do. He was trying to understand the differences around him, so that he could find commonalities that existed within them. I was working as a junior drug researcher with diagnova; I was the youngest employee on such a post in such a short time, skinny with American accent, and I suddenly found myself as the odd one out, where everybody was already different from who I was and so for me to make friends I had to understand the differences around me and find commonalities that existed within them. That is “the art of diplomacy,” understanding the differences around you and finding the commonalities that exist within them.

The first way to embrace the art of diplomacy is to collect and gather information. The way we can apply it is by taking notice of our current surroundings, observing what brings people together, what puts smiles on people's faces and what causes them to frown; take mental notes of that, reading up on the cultures around us and then interviewing, asking questions. Ensure that as you interview, you're asking open-ended questions, questions that allow them to tell you about themselves, questions that allow them to tell you how they interpret things in the world. I followed

the same and exact process; I looked around me and started making conversations seeking help on tests. Following the process it became one on ones to two on twos and then three and threes and on. So pretty soon I found myself in a position where I had friends and they were inviting me to do things outside the office. What this experience taught me was the importance of coming together for common goals. My team mates were from all parts of the country, spoke a little differently, acted differently, had a different accent but we realised that in order for us to win, to grow, to be a good team we had to leverage our unique talents for that one goal. Now imagine what can happen if we learn to leverage each others' unique talents to solve a problem. Understand the differences around you, and find the commonalities that exist within them.

The second way to embrace the art of diplomacy is by being an active listener. Good diplomats, when they're posted into new countries, they make sure that they understand the national interests of that country; they make sure that they understand the intellectual and popular culture of the new environment and so what they do is they establish mutual trust and relationships with the influential members of this new environment. They do this so they can foster positive collaboration between people from different cultures and thereby international cultures. And the best way they do this is by becoming an active listener. Ways that we all can become active listeners is by learning how to listen to obtain information, learning how to listen to learn and learning how to understand. It takes an insane amount of concentration and determination to become an active listener. You have to remind yourself that the goal is to understand what the other person is saying, and so be deliberate with your listening, paraphrase, ask questions, paraphrase back to them if you have to make sure that it is a mutual level of understanding because if you don't you'll find that whatever you're saying and whatever the other person is saying are very different. Understand the differences around you and find the commonalities that exist within them.

The third way to embrace the art of diplomacy is to become an active member of the community. Whether you go to school, whether you go to work or whether you live in a different neighbourhood, ensure that you become an active member of the community. I'll use diplomats to illustrate this example. Diplomats who are posted out to different countries, they understand that they are the representatives of the heads of state of the country. They must have a firm grasp of the politics, the geography, and the economics of the new environment. It is important for us to understand how the same set of rules affects different set of people. The reason why this is important is because this widens the perspective and allows you to see things from different lenses. You see things from different lenses, you're able to solve a problem that you might not do before. You're able to approach a problem with more understanding. Once you've embedded yourself into this community and you've understood your community, you should expand it because the world is bigger than you, and if you want to succeed in it, you have to understand it. Understand the geography of the world but don't just stop there; travel more and if you have work, join in an infinity group that has nothing to do with you. If you're in school, join a school club that

has nothing to do with you. Constantly put yourself in a place where you are the different one so that you can learn how much bigger the world is than you. Understand the differences around you and find the commonalities that exist within them.

Lots of today's problems are caused because of people's unwillingness to accept change whether its race, gender, orientation or ethnic background. But I believe if we tap into our inner diplomacy, we can learn how to come together as one.

Seek to understand more because the less you understand the more you fear and the more fearful you are the more dangerous you become. So expose yourself to new environments, explore your creativity and be in a state of constant learning because this is the best way to build empathy and acceptance. Collect, gather information, be an active listener and be part of the community so that you can embrace the art of diplomacy.

*"The principle of give and take is the principles of diplomacy- give one and take ten".*

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