

Vol. XLII(2) June 2012

ISSN-0972-1479

Indian Journal of Accounting

140
14/9/12



Journal of
Indian Accounting Association

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EDITORIAL

It is indeed a matter of great pleasure to present before all of you First Issue of this Journal under my editorship. Recently, due to financial crisis all over the world, it is very interesting to examine the current trends and issues in accounting education and research. The papers published in the journal will highlight some important issues.

Dr. Martina and Dr. Aishwarya have identified some of the critical issues related to e-accounting that the professional community is presently confronted with. Mr. Anupam, Vinita and Swati have made comprehensive analysis of NPA of total banking sector and distribution of commercial bank credit to priority sector and SSIs. Dr. Patel has remarked that the DTC would make dramatic impact on Indian Economy and direct tax and total tax to GDP ratio would decrease after implementation of DTC. Dr. Parmar has observed that financial reporting is vital for investors to take investment decisions. Dr. Aparna, Dr. Poonam and Dr. Subhash have suggested that if banks concentrate on different variables discussed by them, banks would be able to generate better profitability in the present globalized era. Mr. Lalit Kumar and Mr. Sudipta have analyzed dividend payout trends in the Indian Steel Industry. The new concept related with triple bottom line reporting discussed by Dr. Yagnesh and Mr. Tejas. Mr. Kaushik has studied the effects of volume effect in the lime light of the aftermath of the information release in the market. Dr. Kansal & Mr. Modi has written about new emerging issues of Carbon Credit in India.

This is the first issue of journal under my editorship. I want your valuable guidance and co-operation in my new endeavour. I request all the Presidents/Branch Secretaries to send latest upgraded list of life members with branch code in excel format in email to chiefeditorija@gmail.com for better and prompt delivery of journal and you may also directly deposit new life members fee in a bank or online wire transfer as under :

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PRESIDENTIAL REMARKS

Dear Members,

A saga of IAA was started late back in the year 1969, which is a manifestation and has evolved as abanyan tree. IAA has its branches/ chapters spread all over the India. Its chain linked shape is its unique identity and as it is well known that the interlinks of the chain should be tightly entangled so that the chain functions efficiently and effectively. As far as functioning is concerned it is very well interpreted the way IAA is spreading but the functioning of only few branches/ chapters is in limelight through journals. The reason may be either lacunae in reporting of the activities due to over tight schedule of the secretaries, or nil activities at the branches with no initiatives taken by new members so to revive the same. Also at certain branches/ chapters the secretaries may not be influential enough despite the knowledge they possess, to execute their responsibilities so to uplift the branch/ chapters. This can be either worked upon or replacements can be done. Youngsters are encouraged so that they can combine their skills with techniques and experience of the elder members for the progress of the IAA. We need to give a thought to prepare & develop "a generation" under our supervision so that can carry forward the baton of the association with pep & vigor. Every year we prepare the receipts and payment accounts of our branches/chapters along with expenditure account & balance sheet. Audit too should be done. We can prove that we aren't inactive by sending the above said. Transparency in an organization builds trust amongst the members

Country has immense skill and manpower but effective utilization with adequate payment is missing. Change is long awaited, but the manner it has to be is yet unforeseen. We as a general public are extremely angry with politicians due to corruption and negativity every where. Transparency there too will help in curb the corruption. Transparency & efficiency in work-established to accomplish the tasks on time – will certainly help in eradicating the corruption. General corruption is very minimal in comparison to Corporate Corruption. The cases of corruption that are witnessed in the recent back, very evidently corporate corruption has played a major role in it. In corporate corruption CAs too have their role in it. Isn't it an opportunity for us to avail? Or else in some public movement our integrity too will be doubtful.

Environmental conservation has become a fashionable conversation of the west. Sometimes Environmental Account, Carbon Credit Account now it is Natural Capital Account we are conversing on. But India's entire thought process, working style & life style is based on the conservation of environment. We have worshiped nature and its every bit of in the form of God. Why don't we let others be aware of our philosophy ? We have to develop self esteem in ourselves.

Our National Conference will be held in Rajkot. You must be aware of the subjects of different sessions. We should try & search (dig) out what should be the Indian philosophy & thinking in every field. As ancient India has always been reasonable and various shastras have already mentioned the policies that we formulate today with a modern name. In order to lead the world and evolve as a developed nation in this century we will have to march ahead with absolute confidence keeping our philosophy in view to work timely.

Umesh Holani

President, Indian Accounting Association
Gwalior

E-ACCOUNTING IN INDIA

**Dr. Martina. R. Noronha*

***Dr. Aishwarya. R. Kulkarni*

ABSTRACT

Accounting professionals have to face a number of new situations and problems while performing the accounting and audit of companies operating in electronic environment. The present study attempts to identify some of the critical issues related to e-accounting that the professional community is presently confronted with. An attempt has been made in this study to discuss the views of accounting professionals in India on various issues relating to e-accounting. The tools used for analysis are weighted average score and percentage. The findings are presented by the use of descriptive statistics.

Key words: *Accounting, Auditing, E-commerce, India.*

INTRODUCTION

Accounting is the information system that measures business activity, processes the data into reports, and communicates the results to decision makers, which could be Individuals, Business, Investors, Creditors, or Taxing Authorities (Horngren, Harrison, 2007). The primary purpose of an accounting information system (AIS) is the collection and recording of data and information regarding events that have an economic impact upon organisations and the maintenance, processing and communication of such information to internal and external stakeholders (Stefanou, 2006). There has been a constant growth in the use of information and communication technology in business to support the exchange of data and information within and between organisations. New technologies, like the Internet and mobile solutions, have provided new business opportunities and operations.

E-Accounting refers to Electronic Accounting, a term used to describe an accounting system that relies on computer technology for capturing and processing financial data in organizations. When organizations adopt e-accounting, they usually discover that even though computerized accounting systems handle financial data efficiently, their true value will be when they are able to generate immediate reports regarding the organization (Hotch, 1992).

Replacing accounting paper records with computer records surely has many advantages. The advantages include: easier access to accounting information, increased accuracy of accounting information, and improved quality of accounting information (Pincus, 1999). Ramirez and Cosme (2008) have discussed the importance of technology in their article, "It is certainly no secret that technology has evolved to the point that no modern business enterprise can survive without it". It is shown by

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the fast-increasing number of paperless solution provider companies in the recent years. Tuunainen (1999) explained that the age of information technology provides possibilities for an effective coordination of business process. By electronic commerce, economic transaction between different partners and parties will be facilitated in value chain.

Technology is the solution to overcome the challenges of an accounting profession. Standardization and automation are achieved via integrated product suites, paperless system, virtual offices outsourcing, and leadership approach (Teresa 2008). Sutton (2000) described that the accounting change towards the use of Information technology has enabled companies to focus on their key competencies and shift other activities in the value chain to business partners with more competencies in these areas; and the financial reporting model must eventually shift to something closer to a continuous reporting model, and assurance on this information can only be provided in a timely manner by focusing on the reliability of the systems that generate the information.

The Emerging Issues Task Force (EITF) of the Federal Accounting Standards Board (FASB) addressed various issues in e-commerce accounting. In India, the Institute of Chartered Accountants of India (ICAI) issued a Guidance Note on accounting by dot.com companies and other entities engaged in electronic commerce in the year 2001. The Institute notes that whereas some of the accounting issues are particular to the new business models atypical of e-commerce, there also are some issues that may be addressed to viz-à-viz traditional commerce. No doubt, a few guidelines exist for meeting some of these new challenges, sheer magnitude and diversity of problems renders these guidelines grossly in- adequate to comprehend their intricacies. An attempt has been made to identify critical issues related to e-accounting that the professional community is presently confronted with.

LITERATURE REVIEW

Challenges facing the financial accounting and the accounting profession have been discussed among researchers (Alles et al. 2000; Olivier 2000; Sutton 2000; Vasarhelyi & Greenstein 2003). There seems, however, to be a number of concepts used in the literature relating to the use of technology in financial accounting. Rezaee et al. (2000 and 2001) wrote: “Many economic events are now being captured, measured, recognized, and reported electronically, without any paper documentation; and *online, real-time accounting (RTA)* is emerging as the system of choice.”

Bodnar and Hopwood (2001:411, 426-427) used concepts like on-line input systems, on-line real-time processing and on-line reporting and stated: “In paperless input systems, transactions are input directly into the computer network and the need for keying in source documents is eliminated.” The idea of a “paperless accounting” has been brought forward mainly by authorized auditors during the last decade (Vahtera & Salmi 1998; Mäkinen & Vuorio 2002).

Carr (1985) conducted a study of 24 organizations in U.K. Based on the responses of 344 certified accountants, the survey suggested that benefits which might arise by giving technological support to accountants will be mainly in the form of time saving and improved work quality. The technology will help the accountant to carry out practice of accountancy more effectively rather than change the nature of accountancy.

PRTM, Washington (1999), in an e-business survey found that for 66 per cent companies, customer service was the main e-business goal. 85 per cent companies regarded ebusiness strategy

as important to their success. Pricewaterhouse Coopers (2001) conducted a study of 78 large manufacturing corporations in US. It found that only 40 per cent of them could receive orders online and only 28 per cent could accept payments online. A survey conducted by Ghosh(2000) found that majority of the companies using e-commerce in India considered e-commerce a substantial part of corporate strategy. However, lack of electronic payment facilities and limited technologies used by trading partners hampered the adoption of e-commerce across the entire supply chain. Indian Market Research Bureau (2000) conducted a survey on the status of e-commerce in India covering 360 decision makers in business and 2000 households. It found that organizations expected that 12 per cent of their turnover to be contributed through ecommerce in next two years.

METHODOLOGY

A structured questionnaire was given to 40 practising chartered accountants who are members of the Institute of Chartered Accountants of India to know their views on certain accounting issues arising out of e-commerce. Out of the 40 questionnaire sent out, 30 were received, representing 75%. The survey instruments included open ended and closed ended questions. The chartered accountants were contacted personally .The tools used for analysis were weighted average score and percentage. The findings are presented by the use of descriptive statistics.

OBJECTIVE OF THE STUDY

The main objective of the study is to know the views of accounting professionals on certain accounting issues relating to e-accounting.

NEED OF THE STUDY

Most of the studies on e-commerce have examined the extent of its activities in the advanced countries. However, no attempt seems to have been made to examine the accounting aspects of e-commerce in India. A number of authors in various countries share similar views on the lack of research in the area of AIS. (Stefanou (2006) This study therefore contributes to filling this gap by exploring the adoption and use of E-Accounting in India. The present study attempts to identify some of the critical issues relating to e-accounting that the professional community is presently confronted with.

DISCUSSION

Accounting professionals have to face a number of new situations and problems while conducting the accounting and audit of companies operating in an electronic environment. Emergence of e-commerce has raised several issues demanding accountant's attention, viz., treatment of the website development cost, depreciation of computer hardware and software, etc. The responding CAs are from diverse backgrounds. Diversification of sample ensures that the findings are broad-based, and, it also enables an understanding of the diversity of e- accounting issues across different situations of which the backgrounds of the CAs are an important aspect.

Table: 1

Gender wise classification of Respondents

Gender	No.	(%)
Male	23	77
Female	7	23
Total	30	100

Out of 30 respondents, seven were females, representing 23% while 77% were males.

Table: 2

Age wise classification of Respondents

Age	No.	Percentage (%)
Below 30 years	6	20
30-40 years	8	27
40-50 years	7	23
Above 50 years	9	30

The above Table reveals that majority (30%) of respondents belong to the age group above 50 years followed by 27% between 30-40 years.

Table: 3

Professional Experience

Years	No.	(%)
Below 5 years	9	30
5-10 years	3	10
10-15 years	5	17
15-20 years	3	10
Above 20 years	10	33
Total	30	100

33% of the respondents had professional experience of more than 20 years followed by 30% respondents who had professional experience of less than 5 years

Table: 4

Respondents' Qualifications

Qualification	No.	(%)
C A	24	80
C A And C S	2	7
C A And Any other	4	13
Total	30	100

80% of the respondents possessed only CA degree while 7% had a CA and CS degree while 13% of the respondents were not only CA but also had other degrees in either law , management or cost accounting.

Table: 5

Respondents' Specialisation

Specialisation	No.	(%)
Accountancy	4	13
Accountancy and Tax	8	27
Accountancy and Auditing	7	23
All of the above	11	37
Total	30	100

Majority (37%) of the respondents specialized in all the three areas of specialization i.e. Accountancy, Tax and Auditing.

Table: 6

Clients Using E-Accounting

Clients	No.	(%)
Above 80 %	7	24
60-80 %	6	20
40-60 %	4	13
< 40 %	13	43
Total	30	100

43% clients of the respondents used less than 40% E-Accounting. It was found that lack of knowledge about the real advantages of E-Accounting and resistance to change are the main reasons for companies not adopting e-accounting.

Table: 7

Software used by clients for E-Accounting

Software	No.	%
Tally	30	100
Any other	11	37

The above table indicates that all the clients who use e-accounting use Tally but some of them in addition to Tally also used other softwares such as finnacle, bonny,etc .

Table: 8

Sufficient Security available for E-Accounting

Yes	No.	%
Yes	23	77
No	7	23

In business activities, sensitive data and information must be protected. Some of the security challenges in e-environment are manipulating information, disclosing information to unauthorized people, stealing of information and network resources, disrupting network services, wrongful claiming of services administered/ not administered. Majority of the respondents (77 percent) felt that sufficient security is available for E-accounting while few respondents (23 percent) felt that sufficient security is not available. Use of password and proper authorization together with good internal controls and periodic checks of records, can be of help in an e-environment .

Table: 9

Changing Role of CAs in E-Environment

E- Accounting Activities/Rank	1	2	3	4	5	6	7	8	9	Total
Accounting Policies	17	6	4	-	-	-	-	2	1	30
Risk Assessment	4	6	5	5	4	3	3	-	-	30
Better Practice Controls	3	4	3	8	4	4	-	3	1	30
Organisational Restructuring	2	1	1	3	5	3	9	4	2	30
Financial feasibility of e-commerce	-		3	4	2	5	7	7	2	30
Integration with business processes	1	3	3	3	8	1	7	-	4	30
Liasion with legal department	-	1	2	2	3	6	3	4	9	30
New procedures to account for varying tax revenues	-	1	2	4	3	3	6	5	6	30
Cost Benefit Analysis	3	7	7	4	1	3	2	3	-	30

Table: 10

Weighted Average Score (WAS)

E- Accounting Activities	WAS	RANK
Accounting Policies	66	1
Risk Assessment	142	3
Better Practice Control	147	4
Organisational Restructuring	175	6
Financial feasibility of e-commerce	188	7
Integration with business processes	159	5
Liasion with legal department	201	9
New procedures to account for varying tax revenues	193	8
Cost Benefit Analysis	115	2

E-environment has made it imperative for the accounting professionals to be multi-skilled in the use of IT, apart from proficiency in their domain areas of expertise. Chartered Accountants will be able to concentrate on core management issues rather than routine functioning of scrutinizing various financial documents. The responding CAs were asked to rank certain activities related to e-commerce, which

according to them were important in helping their clients .The first rank was given to accounting policies followed by cost benefit analysis while the third and fourth rank was given to risk analysis and better practice control. This indicates that accounting policies, cost benefit analysis and risk assessment are the three main activities related to e-accounting, where the respondents can help their clients.

Table: 11

Costs of Website Development

Costs of Website Development	No.	%
Revenue Expenditure	7	23
Capital Expenditure	8	27
Deferred Revenue Expenditure (2 years)	15	50
Total	30	100

According to AS 26 (corresponding to SIC Interpretation 32) an entity may incur internal expenditure on the development and operation of its own web site for internal or external access. A web site designed for external access may be used for various purposes such as promote and advertise an entity's own products and services, provide electronic services, and sell products and services. A web site designed for internal access may be used to store company policies and customer details, and search relevant information The CAs were asked whether the costs of website development be expensed within the year like revenue expenditure, or be treated as deferred revenue expense or be taken as capital expenditure. The Standards Interpretation Committee of International Accounting Standards Board (IASB) rules that "... a website developed by an enterprise using internal expenditure, whether for internal or external access, is an internally generated intangible asset that is subject to the requirements of IAS 38, Intangible Assets." The IAS 38 requirements that intangible assets initially be measured at cost and the amortization method for an intangible asset should reflect the pattern of its future economic benefits, and, if the pattern cannot be determined reliably, the straight line method be chosen, makes it clear that such expenditure is to be regarded as capital expenditure. In fact, IAS 38 is categorical when it states that, when acquired externally, the expenditure on the intangible assets must be capitalized. 50% of the respondents were of the opinion that the cost of website development should be treated as deferred expense and be amortised over a period of two years.

Table: 12

Costs of Operating Website

Costs of Operating Website	No.	(%)
Revenue Expenditure	20	67
Capital Expenditure	3	10
Deferred Revenue Expenditure	7	23
Total	30	100

Cost of operating website includes personnel training, data back up, creating linkages, continuous updating, etc. 67% of the CAs were of the opinion that it should be considered as a revenue expenditure.

Table: 13

Depreciation of Hardware and software

Method of Depreciation	No.	(%)
Straight Line Method	9	30
Written Down Value Method	21	70

Seventy percent of the respondents were of the opinion that depreciation of hardware and software should be treated under the written down value method.

Table: 14

Depreciation of Hardware and Software for long term use

Time Period	No.	%
Less than 3 years	13	43
3-5 years	17	57

According to AS 26, the useful life of an intangible asset should be always finite, and included a rebuttable presumption that the useful life cannot exceed ten years from the date the asset is available for use .It also states that ,the best estimate of a web site's useful life should be short. 57 percent of the respondents were of the opinion that depreciation of Hardware and Software for long term use should be written off within 3-5 years.

Table: 15

Depreciation of Hardware and Software for Short Term Use

Time Period	No.	%
Estimated Useful Life	17	57
Within a year	13	43
Total	30	100

Almost 57 % of respondents feel that depreciation on such investments should be written off during their estimated useful life while 43% felt that it should be written off within a year.

Table: 16

Separate Disclosures of Revenues earned on Services

Disclosure	No.	%
No	4	13
Yes	26	87
Total	30	100

87 % of the respondents were of the opinion that there should be separate disclosures of Revenues earned on services.

Table: 17
Human Resource Accounting for E-Companies

	No.	%
Yes	30	100

The Human Resources Management section within an organization is responsible for hiring of personnel. It involves all the decisions that in some way affect or influence the people who work for an organization. The respondents were asked whether E-Companies should compulsorily use human resource accounting. All the respondents' views were affirmative. Effective Human Resources Management increases organizational productivity, Increases quality of work, Improves quality of working life, and leads to Statutory and legal compliance. (Aseervatham and Anandarajah 2003)

CONCLUSION

E-commerce environment has also opened up new vistas of opportunities for accounting professionals. Lack of knowledge about the real advantages of E-Accounting and resistance to change are the reasons for companies not adopting e-accounting. There is a need for standards related to measurement, recording and disclosure of certain e-transactions.

REFERENCES

- Aseervatham A., Anandarajah D. (2003) "Information System Accounting information and reporting systems", 1st edition, McGraw-Hill, Australia Pvt. Limited
- Ashcroft, P. (2005) "Real-Time Accounting", CPA Journal, April 2005, Vol.75, Issue 4, p16
- Banker, R. D., H. Chang, K. Kao. (2002) "Impact of information technology on public accounting firm productivity" J. Information System 16(2) pp.209-222.
- Bhansali, C. (2005) "Who Needs a Paperless Office anyway?" Accounting Today, August, Paperless supplement, Vol.22, pSR24-SR-24
- Cameron, J.J. (2006) "Are they serious about paperless accounting?" Boomer bulletin, March
- Davis, T.C. (2005), "Going Paperless-The Benefits" October, <http://www.knowledge.org>
- Doost, R. K, (1999) "Computers and Accounting: Where do we go from here?" Managerial Auditing Journal, 14(9), pp. 487 – 488.
- Ghosh, Kumar (2000) "E-commerce - A survey of the State of B to B in India: a Long Road Ahead" Chartered Accountant, pp. 34-36
- Gullkvist, B. (2002) "Towards Paperless Accounting and Auditing" Finland: e-Business Research Center
- Hotch, R. (1992) "Accounting: Financial Software" Nation's Business, March 1992, pp. 46.
- Holmes, S. and Nicholls, D. (1988) "An Analysis of the Use of Accounting Information by Australian Small Business" Journal of Small Business Management, 2, pp. 57-68.
- Horn gren, C.T. and Harrison, W.T. (2007), "Accounting and the Business Environment" Accounting, 7th ed., Pearson, Education, Inc., Upper Saddle River, New Jersey

Indian Journal of Accounting

- James Blaylock (2005) "A Paperless Office is a must today" Practical Accountant; September, Supplement, Vol.38, p18
- Keenan, G. (2008) "Takes More than Just Technology" Accounting Today, September, Paperless Supplement, Vol.22, pSR22-SR22
- Kosiur, David (1997) "Understanding Electronic Commerce" Prentice Hall India Pvt. Ltd.,
- Pitturro, Marlene (1999) "Get into e-commerce without betting the store" Journal of Accountancy, p. 56, May.
- Preston, A., (1993) "Accounting Gets New Look: Vendors Cultivate Windows Packages" PCWeek, May 1993, p. 97.
- Stefanou, C., (2006) "The Complexity and the Research Area of AIS" Journal of Enterprise Information Management, 19(1), pp. 9-12.
- Tavakolian, H, (1995) "PC-Based financial Software: Emerging Options" Industrial Management & Data Systems, 95(10), pp. 19-24.
- Larrivee, B. (2005) "Going Paperless: Are we there yet?" AICPA Online Publications articles, the practicing CPA, January
- LaRue, J. (2006) "Top 7 Mistakes to Avoid When Going Paperless" Accounting Today; September 2006, Vol.20, Issue16, Special section p5
- Massie, R. (2008) "Beyond Document Management" Accounting Today, August, Paperless Supplement, Vol.22, pSR-19-SR-19
- Mongeon, R. (2008) "The Risk and Rewards of Going Paperless" Accounting Today; August, Paperless supplement, Vol.22, pSR6-SR-6
- Paymaxx, Inc. (2004), "Extending paperless to payroll", Practical Accountant, September 2004 Supplement, Vol.37, pSR-19-SR-19
- Phelan, S.E (2003) "A Paperless success story", Journal of Accountancy, October 2003, Vol. 196 Issue 4, p59-68
- Institute of Chartered Accountants of India (2001) "A Guidance Note on Accounting by Dot.com Companies"
- Sutton S.G. (2000) "The changing face of accounting in an information technology dominated world" International Journal of Accounting System 1, pp.1-8
- Teresa, M. (2008) "Standardization and Automation – What it all means for today's Fast-Paced Firms" Accounting Technology, June, Supplement, Vol.24, pSR8-SR8

NON PERFORMING ASSETS IN INDIA

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ABSTRACT

This paper deals with the concept of Non Performing Asset and Non Performing Assets (NPAs) in Indian commercial Banks. In this paper detail of Non Performing Assets of Total banking Sector, Distribution of Commercial Bank Credit to Priority Sector and Small Scale Industries has been listed in the table format.

Keywords: Non-Performing Assets, Commercial banks, Nationalization Priority sector, Small Scale Industrial Sector.

One of the important issues that is drawing attention of policy makers and researchers is the Non-Performing Assets of Commercial banks. High level of Non-performing Assets (NPAs) is a concern to everyone involved as credit is very essential for economic growth and NPAs affect the smooth flow of credit. Broadly, Non Performing Advance is defined as an advance where payment of interest or repayment of installment of principal (in case of Term Loans) or both remains unpaid for a certain period.

In India though the issue of NPAs was given more importance after the Narasimham committee report (1991) highlighted its impact on the financial health of the commercial banks and subsequently various asset classification norms were introduced, the concept of classifying bank assets based on its quality began during 1985-86 itself. A critical analysis for a comprehensive and uniform credit monitoring was introduced in 1985-86 by the RBI by way of the Health Code System in banks which, inter alia, provided information regarding the health of individual advances, the quality of credit portfolio and the extent of advances causing concern in relation to total advances. It was considered that such information would be of immense use to bank managements for control purposes. Reserve Bank of India advised all commercial banks (excluding foreign banks, most of which had similar coding system in their organizations) on November 7, 1985, to introduce the Health Code classification indicating the quality (o health) of individual advances in the categories, with a health code assigned to each borrowal account. Under the above Health Code System RBI was further classifying problem loans of each bank in three categories i.e. i) advances classified as bad & doubtful by the bank (ii) advances where suits were filed/decrees obtained and (iii) those advances with major undesirable features.

The Narasimham Committee (1991) felt that the classification of assets according to the health codes is not in accordance with the international standards. It believed that a policy of income recognition should be objective and based on record of recovery rather than on any subjective considerations. Also,

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before the capital adequacy norms are complied with by Indian banks it is necessary to have their assets revalued on a more realistic basis on the basis of their realizable value. Thus the Narasimham committee (1991) believed that a proper system of income recognition and provisioning is fundamental to the preservation of the strength and stability of the banking system. The committee suggested that Indian banks should follow the international practice in defining a NPA. Thus based on the recommendations of Narasimham committee report the non-performing assets would be defined as an advance where, as on the balance sheet date:

1. In respect of overdraft and cash credits, accounts remain out of order for a period of more than 180 days.
2. In respect of bills purchased and discounted, the bill remains overdue and unpaid for a period of more than 180 days.
3. In respect of other accounts, any accounts to be received remains past due for a period of more than 180 days.

The stricter regulations on NPA definitely reduced bad loans in the banks, Banks are now constantly being conscious of such accounts and proper measures are taken when an account has potential to become NPA. The Gross NPA of the total banking industry has increased from Rs. 50815 crores in 2004 to 70861 crores in 2008 which however has declined to Rs. 58299 crores in 2011 (Table 1.1). Similarly the Net NPA has increased from Rs 23761 crores in 2004 to Rs. 35554 crores in 2008 which however has declined to Rs. 21441 crores in 2011. The growth rates of both Gross and Net NPAs also have declined over time, and after 2009 they have become negative. This shows that the NPA levels of Indian commercial banks are reducing. This is also confirmed by the fact that the NPA (both gross and net) as percent of Gross advances as well as total assets is declining over time. While the Gross NPA as percent of gross advance and total asset has declined from 14.3% and 6.3% in 2004 to 5.2% and 2.5% in 2011 respectively, the Net NPA as percent of Gross advance and total asset has declined from 6.7% and 2.9% in 2004 to 1.9% and 0.9% in 2011 respectively.

Table 1.1: Non Performing Assets of Total banking Sector

Non Performing Assets of Total Banking Sector (Rs Crore)								
	2004	2005	2006	2007	2008	2009	2010	2011
Gross NPA	50815	58722	60841	63741	70861	68717	64787	58299
<i>Change</i>		7907	2119	2900	7120	-2144	-3930	-6488
<i>Percentage growth</i>		15.56	3.61	4.77	11.17	-3.03	-5.72	-10.01
<i>As Percent of Gross Advance</i>	14.39	14.71	12.79	11.42	10.42	8.86	7.19	5.27
<i>As Percent of Gross Asset</i>	6.36	6.18	5.49	4.91	4.62	4.04	3.27	2.57
Net NPAs	23761	28020	30152	32462	35554	32670	24617	21441
<i>Change</i>		4259	2132	2310	3092	-2884	-8053	-3176
<i>Percentage growth</i>		17.92	7.61	7.66	9.52	-8.11	-24.65	-12.9
<i>As Percent of Gross Advance</i>	6.73	7.02	6.34	5.82	5.23	4.21	2.73	1.94
<i>As Percent of Gross Asset</i>	2.97	2.95	2.72	2.50	2.32	1.92	1.24	0.95
Gross-net	27054	30702	30689	31279	35307	36047	40170	36858
<i>Change</i>		3648	-13	590	4028	740	4123	-3312
<i>Percentage growth</i>		13.48	-0.04	1.92	12.88	2.1	11.44	-8.24

Source: Report on Trends and Progress of Banks in India, various issues

When we examine the sector-wise scenario we observe that NPAs arising from the SSI sector is comparatively higher than other sectors that fall even within the priority sector. From RBI report it is seen that in 2008, NPAs from agriculture loans was 13.8% and that of SSI was 18.7%. In 2010 NPAs arising from agriculture sector increased to 14.4 % but still remained lower to that of SSI sector which was 17.6%. Thus directed credit to the priority sector in general and loan to SSI sector in particular remained major concern of the banks as far as NPA issue in concern. It is therefore of interest to look briefly at the credit to these segments.

DIRECTED CREDIT TO PRIORITY SECTOR

After independence it was felt that in order to achieve overall development of the country it is essential to develop the large rural sector, for which it is necessary to channelise required financial resources. In 1954 the All India Rural credit survey committee' found that not sufficient credit has been directed towards the rural sector of the economy. Thus the committee recommended for the development of state sponsored commercial banking system with branches spread in the rural areas. As a result of this a drive to nationalize commercial banks was launched. Thus one of the main objectives of nationalization of commercial banks was to provide credit to, what was considered as, priority sector. As lending to these sectors was not profitable for commercial banks they were not motivated to lend to these sectors. This was evident from the fact that the proportion of credit for industry and trade moved up, from 83 per cent to 90 per cent between 1951 and 1968. This rise was however at the expense of crucial segments of the economy like agriculture and that small-scale industry. Due to this reason commercial banks were directed to lend to these sectors by fixing targets. Apart from fixing targets of minimum credit, banks were also asked to lend to these sectors at a concessional rate. This was done to ensure that bank advances were confined not only to large-scale industries and big business houses, but were also directed, in due proportion, to important sectors such as agriculture, small-scale industries and exports.

To begin with there was no target on the priority-sector lending. It was just emphasized that commercial banks should increase their involvement in the financing of priority sectors, viz., agriculture and small scale industries. However, based on the recommendations of the report submitted by the Informal Study Group on Statistics relating to advances to the Priority Sectors, the description of the priority sectors was later formalized in 1972. Later banks were advised to raise the share of the priority sectors in their aggregate advances to the level of 33 1/3 per cent by March 1979. Further it was increased to 40 percent at the end of 1985 and also sub-targets were fixed. During the initial period, only agriculture, small scale Industries, small and marginal farmers and artisans and exports were included in the priority sector. Later, based on the recommendations of Narasimham Committee Report (1991), housing, education, consumption, profession, I.T. Sector, food processing not falling under SSI, etc. was also included under the priority sector based.

During 1989-90 the target of priority sector lending was fixed at 40 percent for domestic commercial banks. Within this there were sub-targets which included 18 percent to agriculture and 10 percent to weaker sections. For foreign banks the total target was 32 percent within which the sub-target was fixed at 10 percent to small scale industries and 12 percent to export credit, in 1991.

Later Narasimham committee pointed out many problems related to priority sector lending, the important one being that a large part of NPA comes from priority sector lending. Thus the committee recommended reduction of priority sector target to 10 percent and expansion of the coverage

of priority sector to include more sectors. However, the target of priority sector was not reduced but the definition of priority sector was expanded to include more sectors. Also a provision was made such that banks that cannot meet the priority sector targets can deposit funds in the financial institutions like National Bank for Agriculture and Rural Development (NABARD) under Rural Infrastructure Development (RIDF) or some banks can do so in the Small Industries Bank of India (SIDBI) for lesser interest rates, which in turn will be lent out to the priority sectors. The distribution of gross non-food bank real credit to various priority sectors is given in Table 1.2.

Table 1.2 Distribution of Commercial Bank Credit to Priority (Rs Crore, Real Values)

Distribution of Commercial Bank Credit to Priority (Rs Crore, Real Values)									
Year	Gross Non-food Bank Credit	Total Priority Sector	Percent of 2 to 1	Agri-culture	Percent of 4 to 1	Small scale Industries	Percent of 6 to 1	Other Priority Sector	Percent of 7 to 1
1996-97	144564	54121	37.437	21633	14.964	21625	14.959	10863	7.514
1997-98	153862	54612	35.494	21878	14.219	21947	14.264	10787	7.011
1998-99	145950	53880	36.917	21208	14.531	22617	15.496	10055	6.889
1999-00	168793	58632	34.736	21916	12.984	25256	14.963	11460	6.789
2000-01	186127	61461	330.21	22667	12.178	26724	14.358	12070	6.485
2001-02	196111	66214	33.764	24528	12.507	28040	14.298	13646	6.958
2002-03	210462	72768	34.575	25499	12.116	31817	15.118	15452	7.342
2003-04	220324	77650	35.244	26852	12.188	32848	14.909	17950	8.147
2004-05	244511	85926	35.142	28928	11.831	34425	14.079	22573	9.232
2005-06	268250	96517	35.980	32454	12.098	35004	13.049	29059	10.833
2006-07	291729	105910	36.0304	36718	12.586	34566	11.849	34626	11.869
2007-08	366226	124983	34.127	43422	11.857	35671	9.740	45890	12.531
2008-09	411538	149059	36.220	51153	12.430	37206	9.041	60700	14.750
2009-10	540426	206203	38.156	67703	12.528	40318	7.460	98182	18.168
2010-11	720588	261492	36.289	88355	12.262	46276	6.422	126861	17.605

Source: Handbook of Statistics on Indian Economy

The total priority sector credit of commercial banks was around Rs 54121 crores during 1996-97, which increase to Rs 96517 crores during 1999-2000 and it was Rs 261492 crores during 2010-11. It is observed that the priority sector credit has registered higher growth rate during the recent years. While it was around 6 percent for the period 1996-97 to 1999-2000, it increased to around 21 percent during the period 1999-2000 to 2010-11. This could be because the growth rate of the total

credit itself has increased from around 7 percent during the period 1996-97 to 1999-2000 to around 20 percent during the period 1999-2000 to 2010-11. Though the growth rate of the total priority sector has been increasing over the years, similar trend is not observed in the case of the percent of priority sector credit in the total non-food credit. It was around 37 percent of total non-food credit in 1996-97, which declined to around 33 percent during 1999-00. This however has improved in the following years and reached around 38 percent during 2009-10, but again declined marginally to 36 percent during 2010-11. The increase in the percent of total non-priority sector credit in the total non-food credit is not substantial. It was around 35.14 percent during the period 1996-97 to 1999-2000 which increased marginally to around 36.17 percent during the period 1999-2000 to 2010-11.

Looking at the growth rates of the sub-sectors of the priority sector; the growth rate of credit to agriculture and other priority sector are similar to that of the total priority sector credit, whereas the growth rate of credit to Small Scale Industries (SSI) shows a varying trend. The growth rate of the credit to agriculture sector was around 3.76 percent during 1996-97 to 1999-2000, which increased to around 20.7 percent during 1999-2000 to 2010-11. The growth rate of credit of SSI was around 6.06 percent during the period 1996-97 to 1999-2000 which has declined marginally to around 5.17 percent during the period 1999-2000 to 2010-11. However, the growth rate of credit to other priority sector has registered substantial growth over time. It was around 10 percent during the period 1996-97 to 1999-2000 which has increased to around 34 percent during the period 1999-2000 to 2010-11.

Looking at the percentage share of credit to the sub-groups of the priority sector, it is observed that the credit to agriculture sector as well credit to SSI sector has declined over time where the credit to other priority sector credit has increased over time. The decline in the credit to SSI is sharper than the decline in the credit to agriculture sector. The share of credit to agriculture sector in the total non-food credit declined from around 15 percent in 1996-97 to around 12 percent during 2010-11, whereas the credit to SSI declined from around 15 percent in 1996-97 to around 6.4 percent during 2010-11. This decline is sharper in the last few years. On the other hand the credit to other priority sector has increased from around 7.5 percent during 1996-97 to around 18 percent during 2010-11. The increase in the share of priority sector credit could be because of the substantial increase in the housing credit, as housing credit also forms a part priority sector credit.

CREDIT TO SSI

Small Scale Industrial sector is one of the important sectors in India for a number of reasons, prominent amongst them being the employment generation capability. Recognizing its potential in terms of the employment generation and the production, it has been given the priority sector status. During 1996-97 the total number of SSI units was around 68 lakhs which increased to around 119 lakhs during 2009-10. The total investment also increased from Rs 9355 crore during 1996-97 to Rs 178699 crores during 2009-10. Production, measured at constant price (1998-99 base) which stood at Rs 84728 crores during 1996-97 increased to Rs 251511 crores during 2009-10. Importantly the employment level which was around 158 lakh during 1991-91 almost doubled and reached 283 lakh by 2009-10. Similarly the total export increased from Rs 9664 crores during 1996-97 increased to Rs 86013 crores during 2007-08.

The definition of Small Scale Industries in India is decided on the basis of the investment in Plant and Machinery which has changed over time. During 1966 an industry was considered a SSI if its investment in the plant and Machinery was not more than Rs 7.5 lakh. This limit was increased to Rs 10 lakh in 1975. During 1998 the small scale industry was defined as an industrial unit having

an investment in Plant and Machinery not exceeding Rs. 1 crore for most of the 8000 products produced in the SSI sector and not exceeding Rs. 5 crore in respect of certain selected reserved items. In 2006 with the introduction of Micro Small and Medium Enterprises Development Act, 2006 (MSMED Act), the definition of the SSI was further revised. Now, the small scale enterprises (engaged in manufacturing) are defined as units with investment in plant and machinery between Rs. 25 lakh to Rs. 5 crore. Within the SSI sector there are a number of sub sectors including tiny industries sector, ancillary sector, khadi and village industries sector, women enterprises and so on.

According to the definition of commercial banks credit to Small Scale Industries include financing of small, micro and unorganized non-farm sector. As mentioned above, public and private sector banks have to lend 40 percent of their total credit to priority sector, and for foreign banks it is 32 percent. Unlike agricultural sector there is no fixed sub-target in the case of credit to SSI for public and private banks. However, foreign banks are expected to lend 10 percent of their total credit to SSI sector. If they fail to reach the target, the remaining amount should be deposited at the Small Industries Development Bank of India (SIDBI). The distribution of commercial banks credit to SSI sector is presented in table 1.3.

Table 1.3

Commercial Bank Credit to Small Scale Industries								
	Total SSI Credit	Growth Rate of 1	Total Non food Credit	Growth Rate of 3 Credit	Total Priority Sector	Growth Rate of 5	Percent of 1 to 3	Percent of 1 to 5
	1	2	3	4	5	6	7	8
1996-97	21625		144564		54121		14.96	39.96
1997-98	21947	1.49	153862	6.43	54612	0.91	14.26	40.19
1998-99	22617	3.05	145950	-5.14	53880	-1.34	15.50	41.98
1999-00	25256	11.67	168793	15.65	58632	8.82	14.96	43.08
2000-01	26724	5.81	186127	10.27	61461	4.83	14.36	43.48
2001-02	28040	4.92	196111	5.36	66214	7.73	14.30	42.35
2002-03	31817	13.47	210462	7.32	72768	9.90	15.12	43.72
2003-04	32848	3.24	220324	4.69	77650	6.71	14.91	42.30
2004-05	34425	4.80	244511	10.98	85926	10.66	14.08	40.06
2005-06	35004	1.68	268250	9.71	96517	12.33	13.05	36.27
2006-07	34566	-1.25	291729	8.75	105910	9.73	11.85	32.64
2007-08	35671	3.20	366226	25.54	124983	18.01	9.74	28.54
2008-09	37206	4.30	411538	12.37	149059	19.26	9.04	24.96
2009-10	40318	8.36	540426	31.32	206203	38.34	7.46	19.55
2010-11	46276	14.78	720588	33.34	261492	26.81	6.42	17.70

Source: RBI

The total commercial bank credit to SSI sector stood at Rs 21625 crores during 1996-97 which increased to Rs. 26724 crores during 1995-95 which further increased to Rs 34566 crores during 2006-07 and it was Rs 46276 crores during 2010-11. Though there is an increase in the credit to SSI sector over the years in terms of absolute value, the annual growth rate shows a varying trend. During 1996-97 it was 1.49 percent which increased to 11.67 percent during 1999-00, with a sharp decline in following two years it again increased to 13.47 percent during 2002-03. However it has declined steadily and reached the lowest level of -1.29 percent during 2006-07. Later it has improved steadily and it was around 14.78 percent during 2010-11. Unlike the varying trend in the growth rate, the percentage share of SSI credit in the total non-food bank credit has declined over time. It was around 15 percent during 1996-97 which declined to 11.85 percent during 2006-07, which further declined to around 6.42 percent during 2010-11. The percentage share of credit to SSI in the total non-priority sector has marginally increased from 40 percent to 43.7 percent between 1996-97 and 2002-03 which, however, has declined steadily thereafter and reached around 17.7 percent during 2010-11.

CONCLUSION

Controlling the occurrence of systemic banking problems is undoubtedly a prime objective for policy-makers, and understanding the mechanisms that are behind the surge in banking crises is of utmost importance in this regard. Amongst the problems faced by the banks of many developing nations, occurrence of non-performing assets (NPA) is a prominent one. While the origin of the problem of high level of NPAs basically lies in the quality of managing credit risk and the extent of preventive measures adopted, various factors like real interest rates, directed credit of inflation rate can also affect the level of NPA. Analysis of factors that cause the ratio of NPAs to total loans to fluctuate, for selected Asian countries, (viz., Taiwan, Hongkong, Singapore and others) reveals that a high ratio of corporate loans to individual loans results in lower percentage of NPA (Wu et al, 2003). In the literature it has also been cited that the reasons why NPAs are created are sometimes systemic in nature and directly attributable to events such as real estate bubbles (Thailand and Indonesia) or a high proportion of directed lending (Krueger et al, 1999). The problem is significant for the Chinese banks as well and in order to deal with the mounting NPA Problem in the Chinese banks, government constituted four asset management companies (Bonin and Huang, 2001). Thus NPA is a problem of banking sector of many developing nations which needs to be studied carefully.

In Indian financial system, an asset is classified as non-performing asset (NPAs) if the borrower does not pay dues in the form of principal and interest for a period of 180 days. However, with effect from March 2004, it has been decided that a default status would be given to a borrower if dues were not paid for 90 days. Further if any advance or credit facilities granted by bank to a borrower become non-performing, then the bank will have to treat all the advances/credit facilities granted to that borrower as non-performing without having any regard to the fact that there may still exist certain advances/credit facilities having performing status.

Due to the social banking motto of the Government, the problem of NPA had not received due attention in India in the post nationalization (of banks) period. However, with the recent financial sector liberalization drive, this issue has been taken up seriously by introducing various prudential norms relating to income recognition, asset classification, provisioning for bad assets and assigning risks to various kinds of assets of a bank. Overtime though NPA as a percentage of total advances have reduced, it still remains a concern for the Indian banking sector. While the Reserve Bank of India (RBI) as well as the banks has begun to pay considerable attention to the NPA problem, there are only a limited number of rigorous studies in the Indian context that look at this issue in some detail.

Furthermore, while reform regulations attempt to streamline banking operations, norms of priority sector lending remains intact more or less. In particular, banks need to allocate 40% of their total credit disbursement to agriculture, small-scale industries and other such designated priority sectors.

However, it is also well known that the small firms, besides generating manufacturing output and foreign exchange through exports, are also a major source of employment in a labour surplus economy like India. It is also understood that the lack of access to finance for working capital and new investment presents a significant constraint on the ability of small firms to carry out business and to expand (Gang, 1995). Thus it is essential to examine the problem of NPA arising out of advances made by banks to this sector.

Therefore, at the macro level, there is a need to look at the determinants of NPA in the Indian banking sector by examining some of the bank specific as well as macro level indicators. At the micro level on the other hand, one needs to identify the sector specific factors responsible for non-recovery of loans.

Given this background, in the current project, we attempt to look at the determinants of NPA by examining some of the external and internal factors like, the extent of competition, total assets of a bank, size of operations, proportion of rural branches, investments etc., that can influence NPA. It is of our interest to examine, between various bank groups (viz, SBI, Nationalized banks, Private banks and Foreign banks), which is the most efficient group in recovery of loans and what are the factors that determine this efficiency.

To have micro perspective of the problem, as a case study, we have taken up a field survey based exercise concerning the SSI sector to understand the actual workings of the loan recovery process and the associated problems. In particular, we are interested in examining the factors that have influence on recovery of loans in this segment of the Indian economy.

The issue of non-performing assets in the Indian banking sector is discussed in general with trends of NPAs. We analyse date NPA of commercial banks in a panel framework to identify the determinants of NPA. This is done for the total advances and also for advances to the SSI sector. In particular we examine the profit efficiency of the Indian banking sector and in particular check for the significance of NPA as a determinant of efficiency.

REFERENCES

1. Basics of E-Commerce, Legal and Security issues, PHI
2. E-Commerce: Fundamentals and Applications : Chan, Lee, Dillon and Chang, (Wiley India)
3. E-Security and You : Sandeep Oberoi (TMH)
4. E-Commerce Developer's Guide : Noel Jerke, (BPB)
5. Dewan, R., Seidmann, A. (2001, June). Current Issues in e-Banking. Communications of the ACM, 44(5), 31-32.
6. Engen, J. (2000). Financial Funnel. Banking Strategies, 76(6), 64-72.
7. Fonseca, J. (2001). Complexity and Innovation in Organisations. Routledge: London.
8. Growth of Electronic Commerce. International Journal of Electronic Commerce, Winter, 4(2), 25-43.
9. Franco, S. C., Klein, T. (1999). Online banking report. Piper Jaffray Equity Research., www.pjc.com/ec-ie01.asp?team=2
10. Greenland, S. J. (1994). Rationalization and Restructuring in the Financial Services Sector. International Journal of Retail & Distribution Management, 22(6) 21-28.
11. Han, K. S., & Noh, M. H. (1999-2000). Critical Failure Factors That Discourage the Growth of Electronic Commerce. International Journal of Electronic Commerce, Winter, 4(2), 25-43.
12. Journal of Financial Services Marketing, 6(4), 323-332.
13. Turban, E., Lee, J., King, D., & Shung, H. M. (2000). Electronic Commerce, a Managerial Perspective. London: Prentice Hall.

WEBSITES

1. <http://www.securityfocus.com>
2. <http://www.ecommerce-digest.com>
3. <http://www.ecombusiness.com>
4. <http://www.card-media.co.uk/security.htm>
5. http://www.thewebbrains.com/ecommerce_solutions.htm

IMPACT OF DIRECT TAX CODE ON INDIAN ECONOMY

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ABSTRACT

Taxation plays a critical and pivotal role in the process of advancement and growth of any country. Taxes constitute major sources of revenue for the government. A sound tax system is vital for the development of the public finances of any country. Treasury Income Tax Act was introduced for the first time in February, 1860 by James Wilson who became India's first Finance Member. The present Income Tax Act was enacted in 1961, which came into force on 1st April, 1962. The new Direct Tax Code (DTC) would be implemented from April 1, 2013 instead of April 1, 2012 but Tax rates of individual are implemented from April 1, 2012. The DTC would make dramatic impact on Indian Economy. This paper concluded that Tax to GDP ratio is very low in India. Tax to GDP would decrease after implementation of DTC.

SECTION-I

INTRODUCTION

Taxation plays a critical and pivotal role in the process of advancement and growth of any country. Taxes constitute major sources of revenue for the government. Taxes are levied so that investment is made in the resources to enable to country to develop, grow and make progress. A sound tax system is vital for development of the public finances of any country. The main objectives of tax policy can be said to be allocation, distribution and stabilization. Due to the importance of taxation in fiscal policy, it is often said that economic history of a country is determined by its fiscal history. (Pandey, 2006)

The 19th century saw the establishment of British Rule in India. The British Government felt acute financial difficulties consequent to the Freedom Struggle of 1857 and to fill up the gap Treasury Income Tax Act was introduced for the first time in February, 1860 by James Wilson who became India's first Finance Member.

At present, the Income Tax Act 1961 is in force in India on the basis of recommendations of Law Commission and Direct Taxes Administration Enquiry Committee under the chairmanship of shri Mahavir Tyagi. The present Income Tax Act was enacted in 1961, which came into force on 1st April, 1962. Various Committees like Wanchoo Committee, Choksi Committee and Chellaya Committee had been appointed to simplify the direct tax laws and make them more effective. The Finance Ministry has released a new draft Direct Tax Code (DTC)-2010, which is a document containing changes in Exemptions, Tax slab etc. This will be a big change to five-decade old Income

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Tax Act. The new DTC would be implemented from April 1, 2013 instead of April 1, 2012. The existing Income Tax Act and Wealth Tax Act are going to be abolished and single code of tax, DTC would be in place. Concept of assessment year and previous year will be abolished. Status of Resident but not ordinarily resident will stand cancelled. The DTC would make dramatic impact on Indian Economy. In this paper an attempt is made to study Tax contribution to Gross Domestic Product (GDP) and the impact of DTC on Indian economy.

The rest of the paper has been divided into six sections. Section II provides a brief outline of available literature on tax reforms in India. The main objectives of this study are described in section III. The methodological aspects are given in section IV. Section V describes the results of data analysis and the conclusions are given in section VI.

SECTION-II

LITERATURE REVIEW

The Government of India has constituted various committees –Investigation commission under Srinivasa Varadachariar (1947), Taxation Enquiry Commission under Dr. John Mathai (1954), Direct Taxes Administration Enquiry Committee-Tyagi Committee under Shri Mahavir Tyagi (1958), Committee for Rationalisation and simplification of Tax Structure under Bhoothalingham (1967), Direct Taxes Enquiry Committee under Wanchoo (1971), Committee on Taxation of Agricultural wealth and Income under K. N. Raj (1972) , Tax Reforms Committee under Dr. R. J. Chelliah(1971), Advisory group on Tax policy and Tax Administration under Parthasarathi Shome(2001), Task Force under Dr. Vijay Kelkar in 2002 - to study the various aspects of tax revenues, administration, tax policy, structure of tax and also simplify various provision of law and procedures and make them more effective.

Rao (2000) studied about Tax Reforms in India for the period 1970-71 to 1997-98. He found that even after tax reforms, still improving the tax system remains a major challenge in India.

Luigi Bernardi and Angela Fraschini (2005) studied on South-East Asia countries especially tax system and tax reforms in India. They found that Direct Taxes are still in an infant stage, both as weight as well as structure.

Pande (2006) studied about Direct Tax Reforms in India and cross country comparison of Tax-GDP Ratio. He found that Tax-GDP ratio was 9.3% in 2003-04 in India which was the lowest among the developing countries while countries like Sweden Tax to GDP ratio as high as 54% in 2003-04.

Deshande (2011) studied about Indian Tax Reforms and Issues related to Direct Tax Code. She found that systematic reforms in Indian Tax system are seen after 1990. She also found that DTC would have great positive impact on Indian Economy and it would be help to lower fiscal deficit to less than 3% of GDP.

SECTION-III

OBJECTIVES OF THE STUDY

The development of Indian economy can be analyzed on many parameters. The increase of direct tax contribution to Gross Domestic Product can be taken as indicator of development of Indian economy. Various Committees had been appointed to simplify the direct tax laws and make them more effective. The Finance Ministry has released a new draft Direct Tax Code (DTC) as on 28-08-2010, which is a document containing changes in Exemptions, Tax slab etc. Therefore Direct Tax Code Bill-2010 has been selected for this study. The main objectives of this study are:

- (1) To investigate the Tax contribution to GDP in India.
- (2) To study the impact of Direct Tax Code -2010 on Individual Income

SECTION-IV

METHODOLOGY

Historically Treasury Income Tax Act was introduced for the first time in February, 1860 by James Wilson who became India's first Finance Member. The present Income Tax Act was enacted in 1961, which came into force from 1st April, 1962. Therefore the study of Direct Tax, Indirect Tax and Total Tax contribution to GDP has been confined for the period 1962-63 to 2010-11. The new DTC is likely to be implemented from 1st April 2013. Therefore only descriptive discussion regarding DTC has been done. Ratio analysis method has been used for data analysis. Data regarding Tax to GDP ratio and Direct Tax Code bill have been extracted from Finance Ministry of India.

SECTION-V

DATA ANALYSIS

(1) Trend of Tax Revenues

The trends in tax revenues can be measured on the basis of Direct tax to GDP ratio, Indirect tax to GDP and Total tax to GDP ratio. These ratios were presented in Table 1.

Table-1

Direct Tax, Indirect Tax and Total Tax to GDP Ratio

Year	Direct tax to GDP Ratio (%)	Indirect Tax to GDP Ratio (%)	Total Tax to GDP Ratio (%)
1961-62	2.43	5.93	8.37
1970-71	2.18	8.09	10.27
1980-81	2.25	11.40	13.65
1990-91	2.15	13.25	15.40
2000-01	3.41	11.11	14.52
2001-02	3.21	10.59	13.80
2002-03	3.56	10.96	14.51
2003-04	3.98	11.06	15.03
2004-05	4.23	11.02	15.25
2005-06	4.54	11.38	15.92
2006-07	5.39	11.77	17.16
2007-08	6.39	11.06	17.45
2008-09	5.88	10.52	16.40
2009-10 (RE)	5.93	9.15	15.08
2010-11 (BE)	5.48	9.25	14.73

Note: The Tax ratio to GDP at market prices are based on CSO's National Accounts 2004-05 and prior to 2004-05 are based on old series of CSO's National Accounts 1999-2000 series.

RE= Revised Estimate, **BE**= Budget Estimate.

Source: Indian Public Finance Statistics 2010-11, Ministry of Finance, Department of Economic Affairs, Economic Division, New Delhi, Page No. 14.

Direct Tax to GDP Ratio

In 1961-62 Direct Tax to GDP ratio was 2.43% and by the year 1990-91 decreased to 2.15%. The ratio increased to 3.41% in 2000-01 which jumped to 6.39% in 2007-08 in the post reforms period. The ratio declined to 5.48% (BE) in 2010-11 as shown in Table-1.

Indirect Tax to GDP Ratio

In 1961-62 Indirect Tax to GDP ratio was 5.93% and by the year 1990-91 it increased to 13.25%. The ratio decreased to 11.11% in 2000-01 in the post reforms period. In the post reforms period the ratio was nearest to 11% up to 2008-09. The ratio declined to 9.25% (BE) in 2010-11 as shown in Table-1.

Total Tax to GDP Ratio

In 1961-62 Total Tax to GDP ratio was 8.37% and by the year 1990-91 it increased to 15.40%. The ratio decreased to 14.52% in 2000-01 in the post reforms period. The ratio jumped to 17.45% in 2007-08. The ratio declined to 14.73% in 2010-11 (BE) as shown in Table-1.

(2) Analysis of Direct Tax Code

The salient features of this Direct tax code are declared on 28th August 2010 which is likely to be implemented now on 1st April 2013 instead of 1st April 2012.

The new bill includes following features

General provision of DTC

The concept of previous year has been replaced by a period of 12 months commencing from 1st day of April.

Income has been classified into two broad groups

1. Income from Ordinary Sources, it includes

- a. Income from employment
- b. Income from house property
- c. Income from business
- d. Capital Gains
- e. Income from Residuary Sources

2. Income from Special Sources, it includes

- a. Investment income accruing to a non resident;
- b. Royalty and technical fees accruing to a non-resident;
- c. Income accruing to a non resident sportsman;
- d. Income accruing to a non resident association or institution

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- e. Following income accruing to a resident or non-resident assessee:
- (i) Income from lottery or crossword puzzle;
 - (ii) Income from horse races;
 - (iii) Income from card game or any other game of gambling.

(3) Impact of Direct Tax Code on Individual Income

DTC will not be effective from April 1, 2012 but Finance Minister has introduced DTC rates for personal Income tax from April 1, 2012.

The tax trend:

Tax Rate for Individual (Men, HUF and HUF)

The big change is that the same tax slabs will apply to men and women. Now both are eligible for basic exemption of Rs 2 lacs, whereas for Financial Year (FY) 2011-12 it was Rs 1.8 lacs for men and Rs 1.9 lacs for women. Tax rate and Income Tax Slab for Men and HUF and for women are given in the following Table No.2 and Table No.3 respectively.

Table 2

Tax rate and Income Tax Slab for Individual (Men and HUF)

Tax Rate	DTC Bill - 2010	Tax slab under Income Tax Act for FY 2012-13	Tax Slab under for Income Tax Act FY 2011-12	Original DTC Draft introduced in 2009
Nil	Up to Rs 2,00,000	Up to Rs. 200000	Up to Rs 1,80,000	Up to Rs. 1,60,000
10%	From Rs 2,00,001 to Rs 5,00,000	From Rs 2,00,001 to Rs 5,00,000	From Rs 1,80,001 to Rs 5,00,000	From Rs 1,60,001 to Rs 10,00,000
20%	From Rs 5,00,001 to Rs 10,00,000	From Rs 5,00,001 to Rs 10,00,000	From Rs 5,00,001 to Rs 8,00,000	From Rs 10,00,001 to Rs 25,00,000
30%	Above Rs 10,00,000	Above Rs 10,00,000	Above Rs 8,00,000	Above Rs 25,00,000

Table 3

Tax rate and Income Tax Slab for Women

Tax Rate	DTC Bill - 2010	Tax slab under Income Tax Act for FY 2012-13	Tax Slab under for Income Tax Act FY 2011-12	Original DTC Draft introduced in 2009
Nil	Up to Rs 2,00,000	Up to Rs. 200000	Up to Rs 1,90,000	Up to Rs. 1,60,000
10%	From Rs 2,00,001 to Rs 5,00,000	From Rs 2,00,001 to Rs 5,00,000	From Rs 1,90,001 to Rs 5,00,000	From Rs 1,60,001 to Rs 10,00,000
20%	From Rs 5,00,001 to Rs 10,00,000	From Rs 5,00,001 to Rs 10,00,000	From Rs 5,00,001 to Rs 8,00,000	From Rs 10,00,001 to Rs 25,00,000
30%	Above Rs 10,00,000	Above Rs 10,00,000	Above Rs 8,00,000	Above Rs 25,00,000

Tax Rate for Senior Citizens

Tax rate and Income Tax Slab for senior citizens are given in Table No.4.

Age bracket to qualify as senior citizen is reduced from 65 years to 60 years and new age bracket of individual over 80 years was introduced from 1st April 2011 while the structure of the slabs remains constant for all other categories, the minimum exemption limits for individual of ages above 60 and above 80 years are Rs. 2, 50,000 and Rs. 5, 00,000 respectively.

The above data shows that the new direct tax law proposes sweeping taxation changes to promote more savings and retirement benefits. Save more money and save more tax that seems to be the principle guiding the government's new direct tax code that allows higher tax exemptions for long term savings and retirement benefits. Net savings in Tax due to DTC are given Annexure-1.

Table 4
Tax rate and Income Tax Slab for Senior Citizens

Tax Rate	DTC Bill - 2010	Tax slab under Income Tax Act for FY 2012-13	Tax Slab under for Income Tax Act FY 2011-12	Original DTC Draft introduced in 2009
Nil	Up to Rs 2,50,000	Up to Rs 2,50,000 Rs 2,50,000	Up to Rs. 2,40,000	Up to
10%	From Rs 2,50,001 to Rs 5,00,000	From Rs 2,50,001 to Rs 5,00,000	From Rs 2,50,001 to Rs 5,00,000	From Rs 2,40,001 to Rs 10,00,000
20%	From Rs 5,00,001 to Rs 10,00,000	From Rs 5,00,001 to Rs 10,00,000	From Rs 5,00,001 to Rs 8,00,000	From Rs 10,00,001 to Rs 25,00,000
30%	Above Rs 10,00,000	Above Rs 10,00,000	Above Rs 8,00,000	Above Rs 25,00,000

Income from Employment

The proposal to bring in perquisites like government accommodation to be part of salary has also been dropped in DTC Bill. All perks will continue to be taxed as per existing norms under DTC.

Income from House Property

Present system of taxing notional value called 'annual value' proposed to be done away with implementation of DTC. Only actual rent from house property is to be taxed as per DTC. The amount of received in arrears shall be deemed to be the income from house property of the financial year in which such rent is received, whether person is owner of the property or not, after allowing 20% deduction towards repairs and maintenance. The amount of taxes levied by a local authority in respect of such house property (extent to actually paid by him during the financial year), 20% of gross rent towards repair and maintenance and Interest on loan taken for the purpose of acquisition, construction, repair or renovation of the property. No deduction for housing loan re-payment of principal Amount under the DTC.

Capital Gain

Where equity shares or units are transferred after 1 year from the date of their acquisition, 100% of capital gain and if transferred within one year from the date of their acquisition, 50 % of the capital gain shall be allowed as deduction under new DTC.

At present, short-term capital gains arising on transfer of listed equity shares or units of equity oriented funds are being taxed at 15 per cent and long term capital gain arising on transfer of such assets is exempt from tax.

Wealth Tax

There is no wealth tax where the net wealth as on the valuation date does not exceed one crore rupees. 1% tax is proposed to be charged on the amount by which the net wealth exceeds one crore rupees.

Exempt, Exempt and Exempt Region (EEE)

The new tax code has proposed to continue the current tax treatment for provident fund investments. So provident fund investments would continue to be treated under exempt, exempt and exempt (EEE) regime which means that the investments would be tax exempt at the investment stage, earnings stage (when interests are earned) and at withdrawal stage. The pure insurance products have also been treated on EEE basis. But the revenue secretary said that fewer saving products would fall under the EEE basis. In the draft bill it was in the net of EET (Exempt, Exempt and Taxed).

The new draft has proposed EEE method of taxation for Government Provident Fund (GPF), Public Provident Fund (PPF), Recognized Provident Funds (RPFs) and the pension scheme administered by Pension Fund Regulatory and Development Authority. Approved pure life insurance products and annuity schemes will also be subject to EEE method of tax treatment.

Investments made, before the date of commencement of the DTC, in instruments which enjoy EEE method of taxation under the current law, would continue to be eligible for EEE method of tax treatment for the full duration of the financial instrument.

LIMITATION OF THE STUDY

This paper only focused on Tax contribution to GDP and DTC impact on Income tax slabs and its impact on GDP and other highlights of DTC for Income from employment, Income from house property, capital gain and wealth tax. Further studies may be carried out with special reference to impact of DTC on each income source.

SECTION-VI

CONCLUSION

This paper concluded that Direct Tax to GDP ratio, Indirect Tax to GDP ratio and Total tax to GDP ratio have increased in the post reforms period. However Indirect Tax to GDP ratio and Total tax to GDP ratio were declined in last two years.

The Direct Tax Code, which is scheduled to come into force from financial year 2013-14 but tax rate of DTC introduced from this year, had prescribed proposed change of income limits for

various tax slabs drastically. After implementation of this tax rate almost 90% of Indians will pay 20% or less tax because majority of people taxable income is below 10 lacs. Direct tax and total tax to GDP ratio would decrease after DTC implementation. The government should levy tax on agriculture income if assessee taxable income more than Rs 5, 00,000 to increase Direct Tax to GDP and Total Tax to GDP ratios. The government should increase exemption limits to senior citizens under DTC.

REFERENCES

1. Budget speech of Finance Minister of India 2011-12, (URL:<http://www.finmin.nic.in>)
2. Deshpande, Sneha (2011), "Indian Tax Reforms and Issues of Direct Tax Code", Indian Stream Research Journal, Vol. I, Issue-IX October.
3. Government of India (2011), "Indian Public Finance Statistics-2010-11", Ministry of Finance, Department of Economic Affairs, Economic Division, July, New Delhi.
4. Luigi Bernardi and Angela Frascini(2005), "Tax System and Tax Reforms in India", Department of Public Policy and Public Choice-POLIS, Working Paper No. 51, April.
5. Pandey, Manoj(2006), "Direct Tax Reforms in India-Policy Initiatives and Directions" Master Degree Thesis, University of LJUBLJANA, Faculty of Economics and ICPE, LJUBLJANA.
6. Rao M. Govinda(2000), " Tax Reforms in India: Achievements and challenges, Asia Pacific Development Journal, Vol. 7, No.2 Dec. 2000.
7. Taxmann (2010), "Direct Taxes Code Bill-2010, Taxmann Publication (P) Ltd., New Delhi.
8. Wadhawa, Naveen (2010), "Direct Tax Code Simplified", Taxmann Publication (P.) Ltd., New Delhi.

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Annexure-1

**Net savings in Tax at various level of Income due to Direct Tax Code for
Men & HUF, Women and Senior Citizen**

Income	Tax Liabilities under Present Act As per Financial Year 2011-12 (excluding EC and SHEC)			Tax Liabilities under DTC (FY 2012-13) (excluding EC and SHEC)			Net Tax Savings under DTC (FY 2012-13)		
	Men & HUF	Women	Senior Citizens	Men & HUF	Women	Senior Citizens	Men & HUF	Women	Senior Citizens
200000	2000	1000	0	0	0	0	2000	1000	0
300000	12000	11000	5000	10000	10000	5000	2000	1000	0
400000	22000	21000	15000	20000	20000	15000	2000	1000	0
500000	32000	31000	25000	30000	30000	25000	2000	1000	0
600000	52000	51000	45000	50000	50000	45000	2000	1000	0
700000	72000	71000	65000	70000	70000	65000	2000	1000	0
800000	92000	91000	85000	90000	90000	85000	2000	1000	0
900000	122000	121000	115000	110000	110000	105000	12000	11000	10000
1000000	152000	151000	145000	130000	130000	125000	22000	21000	20000
1100000	182000	181000	175000	160000	160000	155000	22000	21000	20000
1200000	212000	211000	205000	190000	190000	185000	22000	21000	20000
1300000	242000	241000	235000	220000	220000	215000	22000	21000	20000
1400000	272000	271000	265000	250000	250000	245000	22000	21000	20000
1500000	302000	301000	295000	280000	280000	275000	22000	21000	20000
2000000	452000	451000	445000	430000	430000	425000	22000	21000	20000
2500000	602000	601000	595000	580000	580000	575000	22000	21000	20000
3000000	752000	751000	745000	730000	730000	725000	22000	21000	20000

Sources:

1. Budget speech of Finance Minister of India 2011-12 and 2012-13 (URL:<http://www.finmin.nic.in>)
2. Taxmann (2010), "Direct Taxes Code Bill-2010, Taxmann Publication (P) Ltd., New Delhi.

AN ANALYTICAL STUDY ON INVESTORS' PERCEPTION ON CORPORATE REPORTING PRACTICES

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ABSTRACT

The primary role of accounting is to provide an effective measurement and reporting system, which is fulfilled by means of periodical statements and reports at the end of each accounting period. This is termed as disclosure or reporting of financial information. Reporting can be defined as a process through which a business enterprise communicates with the external-parties. The purpose of financial report, the users of the financial report, the quality and quantity of the information disclosed, the mode of reporting and timeliness in reporting are some factors which affect the reporting of information in financial statement. Financial reporting assists the investors in selecting the best portfolio for their investments. The statutory and non-statutory reporting are two types of reporting practices in annual report of a corporate unit. In this research article an attempt has been made for analytical study of the perception of investors on corporate reporting practices. After forming five strata of the investors of Rajkot city and using schedule method of data collection, the researcher has collected the primary data as per requirements of the study from 50 randomly selected investors. Being qualitative nature of data, with use of Linkert's five point scaling technique, the data were given quantification. Keeping in view three variables; viz. the components of the annual reports, accounting ratios and interim reporting of Indian Corporate Sector, the perceptions of the selected investors of Rajkot city has been examined. It was observed that financial reporting is vital for the investors to take investment decisions.

INTRODUCTION

Accounting is often referred to as the language of business. The primary role of accounting is to provide an effective measurement and reporting system. This purpose is fulfilled by means of periodical statements and reports at the end of each accounting period. This is also termed as disclosure or reporting of financial information. Reporting can be defined as a process through which a business enterprise communicates with the external-parties. The purpose of financial report, the users of the financial report, the quality and quantity of the information disclosed, the mode of reporting and timeliness in reporting are some factors which affect the reporting of information in financial statement. Financial reporting assists the investors in selecting the best portfolio for their investments. The Institute of Chartered Accountants of India and the Bureau of Public Enterprise have made a commendable contribution in the field of financial reporting by issuing specific guidelines for the presentation of accounts.

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CORPORATE FINANCIAL REPORTING

A corporate report is a comprehensive package of various kinds of information which most completely and suitably describes the economic operations of a company. In case of public sector a financial report acts as very important and useful medium of communication between the enterprise and public. In case of private sector the financial report is a means through which the directors seek and the shareholders extend or refuse their confidence to them every year. The basis of preparation of the accounting records is the Generally Accepted Accounting Principles. There are two types of reporting practices in annual report of a corporate unit which is as follows:

- (1) **Statutory Reporting:** Sections 209 to 233B of the Companies Act, 1956 provide the statutory guidelines in connection with the accounts and audit of company. As per the provisions of the Companies Act-1956 the information like; Balance sheet, Profit and Loss Account, Auditors' Report, A report of the Board of Directors of the company with respect to-The state of the company's affairs, The amounts, if any, which it proposes to carry to any reserves, The amounts, if any proposed to be paid as dividends and; Material changes and commitments, affecting the financial position of the company which have occurred between the end of the financial year of the company to which the balance sheet relates and the date of the report, The annual reports of the public enterprises require the disclosure of the following information in addition to the above, Review of Accounts by the Indian Audit and Accounts department, Comments of the Comptroller and Auditor General of India, and Replies to the comments of the Comptroller and Auditor General of India are required to be reported.
- (2) **Non-Statutory Reporting:** The annual report of a company also includes certain non-statutory information like; Human Resource Accounting, Social Accounting, Statement of Value Added, Statement of Changes in the Financial Position, Financial History and Ratios, Statistical Presentation-Charts, Graphs etc, Chairman's Report, Corporate Objectives and Profile; and Pollution Control Efforts. This information is reported to supplement or to elucidate the information contained in the statutory part. Inflation Accounting;

Structure of Annual Report: Normally the structure of a company's annual report takes the following pattern and reports the information under the contents like; Board of Directors, Chairman's Review, Notice of Meetings, Report of the directors, Sources and Application of Funds, Profit and Loss Accounts, Balance Sheet, Notes on Profit and Loss Accounts, Schedules to the Balance sheet, Auditors' Report, Significant Accounting Policies, Summary of Results, Particulars of Employees, Accounts of Subsidiary Companies, Reports on Corporate Governance, Shareholder Information, Cash Flow Statement, Consolidated Financial Statement, Highlights of Previous Year, Shareholder Reference, Significant Accounting Policies, Financial Ratios, Dividend Statistics, Management Discussion and Analysis, Special Focus Area, Offices, Auditors & Area, Financial Statistics, and Offices, Auditors & Bankers. The reporting of other information like inflation accounting, human resource accounting, social accounting, cash flow information, value added statement, diagrammatical and graphical presentation of financial results etc. differs from company to company.

GUIDELINES OF BUREAU OF PUBLIC ENTERPRISES REGARDING REPORTING: Annual reports of companies should be more informative with a view to bringing out the salient features relating to their working and performance. The Bureau of Public Enterprises has laid down some guidelines with regard to the information, which should find a place in the annual reports of public enterprise. The guidelines require the information like; A summary of financial results

indicating annual turnover, profit after depreciation and interest but before tax, provision for taxation, net profit, appropriations to reserves and provisions, proposed dividends, Information about Changes in Capital structure, Important changes in pricing policy, Changes in accounting methods e.g., changes in the methods of charging depreciation, valuation of inventories, Main events which have influenced the production and profitability of the company under reporting period and outlook for the forthcoming years, General order-book position and production performance, capacities and targets, Export achievements of foreign exchange earnings together with future outlook, Any significant achievements in import substitution or development of new products, Staff welfare activities, township, education, health facilities, New projects or expansions contemplated to increase or diversify production and progress of the concern made so far to be included in published report.

ICAI'S ROLE IN CORPORTING REPORTING : The Institute of Chartered Accountants of India (ICAI) has been making all efforts in improved reporting practices. Some of the important factors considered by the Institute of Chartered Accountants of India for the award of shields and plaques for the best presented accounts like; Compliance with the legal requirement in the preparation and presentation of financial statements as specified by the Indian Companies Act, 1956 and other relevant statues, Basic quality of accounts as judged form the qualification in the auditors' reports, notes to the accounts and compliance with Generally Accepted Accounting Principles, The nature and quality of information presented in the accounts to make the disclosure of accounting policies, statement of changes in financial position, disclosure of unusual and prior period items, use of charts, graphs, inflation adjusted accounts, human resource accounts, value added statements, break-up of operations, product-wise or department-wise social cost statements, location of factories, branches, How informative are the directors' report?, Description of the operations of the organization, information regarding financial operations, capital raised during the year, financial requirements, borrowing, etc. and employee relations and The quality of printing and general presentation.

QUALITATIVE CHARACTERISTICS OF FINANCIAL REPORTING : The main purpose of financial reporting is to provide information useful for making economic decisions. The Accounting Principles Boards of U.S.A. and the True blood Report have suggested certain qualitative requirements of financial reporting. These requirements shows the quality of information needed to satisfy the needs of the users and they includes; relevance, materiality, understandability, comparability, consistency, reliability and timeliness.

RESEARCH METHODOLOGY : In this research work the researcher tires to study the perception of investors regarding the financial reporting practices of Indian Corporate Sector in terms of perceptions of investors. As discussed earlier in this paper Reporting can define as a process by which a Business unit communicates with the stakeholders. American Accounting Association defines Reporting as "A Disclosure practice is the movement of information form private domain into public domain."

SOURCES OF DATA : The data used for this research work is mainly based on primary data which is supported by secondary data. The main source of primary data is selected investors of Rajkot city. For collecting data schedule method has been used. The secondary data are collected from various magazines, books, records and documents related to commerce.

DATA COLLECTION : To collect data a structured questionnaire having various statements relating to the components of annual report and interim reporting based on Linkert's five points scale were prepared. By using schedule method, the researcher collected required data by meeting personally to the selected investors of Rajkot city.

SCOPE OF RESEARCH : The present research work is a micro level study. The following is the scope of present research work:

Functional Scope : Functional scope is to measure reporting practices of Indian Corporate Sector and to examine the perceptions of the investors of Rajkot city with regard to the components of the annual reports, accounting ratios and interim reporting of Indian Corporate Sector.

Geographical Scope : Rajkot city of Gujarat state is Geographical scope for present study.

SAMPLE DESIGN : Five various groups like Professionals, Businessmen, Government Employees, Other Investors and Teacher of Saurashtra University Departments and UG College Teachers of Rajkot City were identified. With the help of stratified random sampling technique 50 respondents from investors of Rajkot city were selected. They were classified in to five groups namely (G-1) Professionals (CA, ICWA, and CS), (G-2) Businessmen, (G-3) Government Employees (G-4) Other Investors and, (G-5) College and Saurashtra University Teachers of Rajkot city. 10 respondents from each group were selected randomly.

OBJECTIVES OF STUDY : Keeping in view the following objectives; the present research work has been carried out:

- ❖ To study the consensus between the Corporate Units and users of the annual report regarding the various items of reporting.
- ❖ To examine the perceptions among the various user groups of annual report regarding the various items of reporting.
- ❖ To analyses the perceptions among the various selected groups of investors regarding the various items of disclosure.
- ❖ To make suggestions to improve in reporting practices of Indian Corporate Sector.

HYPOTHESIS : The following hypothesizes were framed during the course of present study:

Null Hypothesizes :

- *There is no difference in components of annual reports and perceptions of investors of annual report.*
- *There is no difference among various investors of annual report regarding items of interim reporting reported in annual report.*
- *There is no difference among the various investors of annual report regarding other items of information reported in annual report.*

Alternative Hypothesizes :

- *There is difference in components of annual reports and perceptions of investors of annual report.*
- *There is difference among the various investors of annual report regarding items of interim reporting reported in annual report.*
- *There is difference among the various investors of annual report regarding other items of information reported in annual report.*

STATISTICAL TECHNIQUES : For the purpose of analysis of data and to test hypothesis statistical techniques like F test, average have been used.

ANALYSIS AND INTERPRETATION : Considering three variables like components of annual reports, interim reporting and other items of information reported in the annual published report of the Indian Corporate Sector the analysis have been made here, in the present research study. The detailed analysis as per identified variables is as under:

(1) INVESTORS VIEW REGARDING THE COMPONENTS OF ANNUAL REPORT : Various 17 Components of Annual Reports of Indian Corporate Sector like; (1) Profit & Loss Account (2) Balance Sheet (3) Directors' Report (4) Auditors' Report (5) Chairman's Speech (6) Schedules and Notes (7) Statement Relating to Subsidiary Company (8) Human Resource Accounting (9) Social Reporting (10) Statement of Sources & App. Of Funds (11) Cash Flow Statement (12) Statement of Accounting Policies (13) Inflation Accounting (14) List of Directors (15) Statement of Company Highlights (16) Accounting Ratios (17) Graphs, Charts and Diagrams were put forth before the respondents for their response. Investors' view regarding various components of annual reports of corporate sector was analyzed with the help of Linkert's five points scale for various statements giving due weighted of 5 for High Useful, 4 for Useful, 3 for Less Useful, 2 for Not Useful and 1 for Can't Say. The total score of responses for each 17 selected components was calculated and based on that the average score of the levels of usefulness were calculated which are presented in table-1:

Table-1

Average Score of the levels of Usefulness and Differences therein regarding the Reporting Practices on Component of Annual Report

Serial no. of Component of Annual Reports	All Investors	Rank	G.(1)	G.(2)	G.(3)	G.(4)	G(5)	Total
1	4.64	1.5	4.4	4.7	4.7	4.5	4.9	23.2
2	4.64	1.5	4.9	4.3	4.5	4.9	4.6	23.2
3	4.08	5	3.9	4.9	3.7	4.1	3.8	20.4
4	4.04	6	4.3	3.9	3.7	4.7	3.6	20.2
5	3.44	13	3.1	3.8	3	4.1	3.2	17.2
8	3.34	15	3.4	4.1	3.4	2.9	2.9	16.7
9	2.98	17	3.3	3.6	2.8	3.1	2.1	14.9
10	3.94	8	4	3.8	3.9	4.3	3.7	19.7
11	4.14	4	4	4.4	4.2	3.9	4.2	20.7
12	3.76	10	4.2	3.8	3.9	3.4	3.5	18.8
13	3.42	14	3.9	4	2.7	3.2	3.3	17.1
14	3.20	15	3.2	3.6	3.1	3.6	2.5	16
15	3.88	7	4.1	3.9	3.3	3.6	4.5	19.4
16	4.18	3	4.4	3.9	4.2	4.7	3.7	20.9
17	3.82	9	3.7	4.5	4.1	3	3.8	19.1
Total	64.66		65.7	68.4	62.3	65.5	61.4	323.3

Above table-1 shows the views with reference to components of annual reports of Indian Corporate Sector of selected 50 respondent which were classified in to 5 groups viz; G(1) to G(5). The total of all investors is 64.66. The components having serial number 1 and 2 which represents the profit & loss account and balance sheet stands with highest score 4.64. So according to all groups of investors profit & loss account and balance sheet are the most vital components of annual report. However whether difference of reporting satisfaction of different groups of investors are significant or not is tested at 5% level of significance with the help of 'F' test.

H₀ = There is no difference in components of annual reports and expectations of investors of Annual report.

H₁ = There is difference in components of annual reports and expectations of investors of Annual report.

Table-2

Analysis of ANOVA according to Investors' view of Components of Annual Report

Source of Variation	S.S	d.f.	MS	F(c)	F(t)
S.S. Between Groups	1.88	04	0.47	3.13	2.49
S.S. Between Investors View	17.25	16	1.08	7.20	1.85
S.S. Error	9.32	64	0.15		

(Level of significance = 5%, Correction Factor = 1229.68, Total SS = 28.45.)

The above table-2 shows the analysis of the investors view regarding the component of annual report and groups of investors. The calculated values of F are 3.13 and 7.20 and the table values at 5% level of significance are 2.49 and 1.85. The calculated value of F is higher than table value of 'F'. Therefore null hypothesis is rejected that there is difference in the components of the annual reports and perceptions of investors of annual report. So there is significant relationship between the variables. This shows that the results are not as per our expectations. Hence, it can be said that the component of annual reports should be shown in annual report.

(2) INVESTORS VIEW REGARDING THE ACCOUNTING RATIOS :

Various 9 Accounting Ratios reported in Annual Reports of Indian Corporate Sector like; (1) Gross Profit Ratio (2) Net Profit After Tax Ratio (3) Current Ratio (4) Quick Ratio (5) Inventory Turnover Ratio (6) Dividend Payout Ratio (7) Earning Per Ratio (8) Return on Investment and (9) Debt-Equity Ratio were put forth before the respondents for their response. Investors' view regarding various accounting ratios of annual reports of corporate sector was analyzed with the help of Linkert's five points scale for various statements giving due weighted of 5 for High Useful, 4 for Useful, 3 for Less Useful, 2 for Not Useful and 1 for Can't Say. The total score of responses for each 9 selected accounting ratios was calculated and based on that the average score of the levels of usefulness were calculated which are presented in table-3:

Table-3

Average score of the levels of usefulness and differences therein regarding the Reporting Practices on Accounting Ratios

Serial no. of Component of Annual Reports	All Investors	G(1)	G(2)	G(3)	G(4)	G(5)	Total
1	4.56	4.7	4.2	4.6	4.8	4.5	22.8
2	4.56	4.6	4.3	4.7	4.9	4.3	22.8
3	4.02	4.2	3.8	4.0	4.2	3.9	20.1
4	3.66	4.0	3.6	3.0	4.1	3.6	18.3
5	3.8	4.3	4.0	3.3	4.2	3.2	19.0
6	4.3	4.6	3.8	4.2	4.3	4.6	21.5
7	4.5	4.9	4.0	4.2	4.7	4.7	22.5
8	4.26	4.2	4.1	4.2	4.3	4.5	21.3
9	3.84	4.2	3.8	3.8	3.8	3.6	19.2
Total	34.5	39.7	35.6	36.0	39.3	36.9	187.5

Above table-3 shows the views with reference to accounting ratios reported in annual reports of Indian Corporate Sector of selected 50 respondent which were classified in to 5 groups viz; G(1) to G(5). The total of all investors is 34.5. The accounting ratios having serial number 1 and 2 which represents the gross profit to sales ratio and net profit after tax to sales stands with highest score of 4.56. So according to all groups of investors' gross profit to sales ratio and net profit after tax to sales is most highly useful accounting ratio. However whether difference of reporting satisfaction of different groups of investors are significant or not is tested at 5% level of significance with the help of 'F' test.

H₀ = There is no difference among the various investors regarding accounting ratios reported in annual report.

H₁ = There is difference among the various investors regarding accounting ratios reported in annual report.

Table-4

Analysis of ANOVA according to Investors view of Accounting Ratio

Source of Variation	S.S	d. f.	MS	F(c)	F(t)
S.S. Between Groups	1.59	4	0.4	5.71	3.98
S.S. Between Investors View	4.83	8	0.6	8.57	3.15
S.S. Error	2.14	32	0.07		

(Level of significant=5% Total SS = 8.56)

The above table no. 4 represents the statically analysis of the investors view with regard to accounting ratio and groups of investors. The calculated values of F are 5.71 and 8.57 and the table values at 5% level of significance are 3.98 and 3.15. The calculated value of F is higher then table value of 'F'. Therefore null hypothesis is rejected that there is difference among the various investors of annual report regarding accounting ratios reported in annual report. So there is significant relationship between the variables. This shows that the results are not as per our expectation. Hence, it can be concluded that accounting ratio should be seen in annual report.

(3) INVESTORS VIEW REGARDEING THE ITEMS OF INTERIM REPORTING :

Various 12 Interim report items like : (1) Sale, (2) Other Income, (3) Total Expenditure, (4) Interest, (5) Depreciation, (6) Profit before tax, (7) Other adjustments, (8) Provision for taxation, (9) Net Profits, (10) Paid up equity share capital, (11) E.P.S and (12) Book value per share were put forth before the respondents for their response. Investors' view regarding various Interim Items of annual reports of corporate sector was analyzed with the help of Linkert's five points scale for various statements giving due weighted of 5 for High Useful, 4 for Useful, 3 for Less Useful, 2 for Not Useful and 1 for Can't Say. The total score of responses for each 12 selected interim items was calculated and based on that the average score of the levels of usefulness were calculated which are presented in table-5.

Table-5

Average Score of the levels of Usefulness and Differences therein regarding the Reporting Practices on Items of Interim Reporting

Serial no. of Interim Items of Annual Reports	All Investors	G(1)	G(2)	G(3)	G(4)	G(5)	Total
1	4.50	4.4	4.6	4.3	4.9	4.3	22.5
2	4.10	3.8	4.7	4.2	4.2	3.6	20.5
3	4.16	4.0	4.1	3.3	4.8	4.6	20.8
4	4.14	4.1	4.0	3.4	4.8	4.4	20.7
5	3.68	3.6	3.6	3.0	4.3	3.9	18.4
6	4.12	4.1	4.0	3.6	4.7	4.2	20.6
7	3.68	4.0	3.5	3.2	4.2	3.5	18.4
8	3.96	3.9	3.9	4.1	4.1	3.8	19.8
9	4.54	4.3	4.4	4.2	4.8	5.0	22.7
10	4.30	4.7	4.1	3.9	4.4	4.4	21.5
11	4.34	4.4	4.3	4.7	4.8	4.5	22.7
12	4.42	4.6	4.1	4.1	4.5	4.8	22.1
Total	49.94	49.9	49.3	46	54.5	51	250.7

Parmar

Above table-5 shows the views with reference to interim items reported in annual reports of Indian Corporate Sector of selected 50 respondent which were classified in to 5 groups viz; G(1) to G(5). The total of all investors is 49.94. The net profit which indicates the serial number 9 stands with highest score of 4.54. Thus net profit is the most useful interim item to be reported in annual reports according to all groups of investors. However whether different groups of investors are significant or not is tested at 5% level of significance with the help of 'F' test.

H₀ = There is no difference among the various investors regarding items of interim reporting reported in annual report.

H₁ = There is difference among the various investors regarding items of interim reporting reported in annual report.

Table-6

Analysis of ANOVA according to Investors view of Items of Interim Reporting

Source of Variation	S.S	d. f.	MS	F(c)	F(t)
S.S. Between Groups	3.14	4	0.79	8.78	2.57
S.S. Between Investors View	4.97	11	0.45	5	1.86
S.S. Error	3.97	44	0.09		

(Level of significance = 5%, Correction factor = 1047.51, Total SS = 12.08)

The table-6 represents the statically analysis of the investors view regarding the items of interim reporting and groups of investors. The calculated values of F are 8.78 and 5 and the table value at 5% level of significance is 2.57 and 1.86. The calculated value of F is higher than the table value of 'F'. Therefore null hypothesis - there is no difference among the various investors regarding items of interim reporting disclosed in annual report is rejected. So there is significant relationship between the variables. This shows that the results are not as per expectations. Hence, it can be concluded that the items of interim reporting should be shown in annual report.

FINDINGS : The average value of G-2(Businessmen) is the highest followed by G-1(Professionals) and G-4(Other Investors) for component of annual report. Hence, according to businessmen group component of annual reports is highly useful as compare to other groups of investors. The average value of G-1 (Professionals) is the highest followed by G-4(Other Investors) for accounting ratios of annual report. Hence, according to professional group, accounting ratios of annual reports is highly useful as compare to other groups of investors. The average value of G-4 (Other Investors) is the highest followed by G-5 (College and Saurashtra University Teachers) for interim items of annual report. Hence, according to other investors group, interim items of annual reports are highly useful as compare to other groups of investors.

SUGGESTIONS

- ❖ The non-mandatory items especially-Accounting Ratios- should be given proper place in the annual published reports.
- ❖ The interim items should be shown in the annual published reports.

LIMITATIONS OF THE STUDY

The present research work is having certain limitations which are as follow:

1. Present study is limited to only 50 respondent of Rajkot city.
2. It does not include all the investors of each group of Rajkot city so the interpretations and findings of this study can not be generalized without further supporting researches.
3. For evaluating and testing the items due to care was taken for the clarity and simplicity of the language and yet the data of this study depends upon the respondents understanding of the items as well as their opinions, telling and attitude towards disclosure and own criteria of satisfaction.
4. Unfavorable attitude of a respondent towards an important aspect of disclosed item may be override his attitudes towards all other aspects of disclose. This is called the inverse halo effect.

REFERENCES

1. American Accounting Association, 1996.
 2. B. Prdhan, "Corporate Reporting in India, A Historical Perspective" 1989-90.
 3. Jawahar Lal, "Corporate Annual Reports- Theory & Practice" New-Delhi, 2005.
 4. Oza, "New Perspectives in Corporate Financial Reporting in India", New-Delhi, 1990.
 5. N. Das Gupta, "Financial Reporting in India" New-Delhi.
 6. Chartered Secretary, Vol. : XXXVII. No.10, October-2007.
 7. K. S. Muthupandian, "IFRS-7 Financial Instruments:Disclosures-A Closer Look" The Management Accountant, Vol. 43, No. 4, April-2008.
 8. The Management Accountant, Vol.43, No.3, March-2008.
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DETERMINANTS OF PROFITABILITY OF PRIVATE SECTOR BANKS IN INDIA

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ABSTRACT

As financial intermediaries banks play an important role in the operations of an economy. The paper examines the determinants of profitability in the private sector banks in India for the years 2006-07 to 2009-10. A sample of 23 banks in the private sector has been taken. Backward Stepwise Regression Analysis has been used to study the impact of these determinants on the performance of the banks. Return on Assets (ROA) has been taken as the dependent variable while other variables as Spread ratio, Provisions and contingencies, Non interest income, Credit/deposit ratio, Operating expense ratio, Profit per employee, Business per employee, Investment/deposit ratio, Capital adequacy ratio, Non performing assets and Type of bank have been controlled in the study. The results show that Spread ratio, Provisions and contingencies, Non interest income, Operating expense ratio, Profit per employee, Investment/ deposit ratio and Non performing assets are significant variables in affecting the profitability of banks in the private sector of Indian economy. It is also suggested that if banks concentrate on these variables, they would be able to generate better profitability in the present globalised era.

INTRODUCTION

The Indian banking sector provides an interesting context for studying bank profitability. The sector underwent significant changes since the last two decades. Since 1991 it was extensively liberalised through abolition of administrative interventions and regulations. Though the reforms have been adopted gradually by the Indian economy, but liberalisation of Indian economy accompanied with these banking sector reforms have highlighted the urgent need for Indian banking industry to improve in terms of technology, infrastructure and R&D. Not only this, the complicated structure of the Indian Banking industry comprising of scheduled banks and non scheduled banks; further divided into private sector banks, public sector banks, Regional Rural Banks, Cooperative banks along with Foreign sector banks have made the environment even more competitive and challenging. It seems as if unlike other nations of the world, where privatisation has been in vogue since many decades, for a country like India, privatisation is not only a new phenomenon but also such a challenging one that it has led to severe competition amongst different banks in India. Thus, each banks in India needs to uplift its performance in the growing phase of liberalisation, globalisation and privatisation.

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There are many factors that affect the profitability of banks. These factors are not only bank specific but also industry specific. Also, many factors at the macro level too, affect a bank's profitability. Among the internal and bank specific factors the liquidity position of a bank is the pivotal factor that determines bank's credit/lending power, risk bearing capacity and provisioning norms. Thus, the liquidity position affects bank's profitability in a positive way (Singh and Chaudhary, 2009). However, extreme liquidity without sufficient credit creation would not be favourable for bank's performance. Credit creation accompanies with it the risk of non payment by the customers. Hence, huge amount of unpaid loans (Non performing assets) would have negative effect on the profitability of banking business (Badola and Verma, 2006). The liquid resources must be invested to improve the profitability position, so that the investment- deposit ratio generates profits for the bank (Singh and Chaudhary, 2009). Capital adequacy of banks also affects their profitability position. More the capital lesser would be the chances of bankruptcy and hence more profitability (Berger, 1995). Also, banks with high capital may incur large overheads without affecting their profitability (Naceur, 2003). However, the general theoretical framework suggests that reduced expenses and overheads lead to more profitability (Guru *et al*, 2002). Also size of a bank highlights economies and diseconomies of scale in a banking sector. On one hand increased size leads to economies and risk diversification and thus affects profitability in a favourable manner. On the other hand mismanaged size may lead to diseconomies (Naceur, 2003; Athanasoglou *et al*, 2005).

There are external factors also, as ownership of a bank. Many studies suggest foreign owned banks to outperform domestically owned counterparts (Demerguc Kunt Huizine, 1999). Government ownership and private ownership too makes a difference (Molyneux and Thornton, 1992). Industry concentration too affects the performance (Molyneux and Thornton, 1992 Athanasoglou *et al*, 2005).

Banking performance is also affected by the macro economic variables. First and foremost, the financial environment and development level of a country affects bank's performance. The well developed financial system accelerates economic growth by balancing between income, savings and consumption in an economy (Singh and Chaudhary, 2009). Inflation also affects bank's margins. It has an association with bank's rate of interest and hence profitability (Abreu and Mendes, 2002; Guru *et al*, 2002; Athanasoglou, 2005). Even the level of development of stock markets of a country affects the profitability of banking industry (Bashir, 2002; Naceur, 2003). In fact the list of factors that determine and affect the profitability of banks is not exhaustive.

REVIEW OF LITERATURE

Molyneux and Thornton (1992) were the first to explore thoroughly the determinants of bank profitability on a set of countries. They used a sample of 18 European countries during the 1986-1989 period. They found a significant positive association between the return on equity and the level of interest rates in each country, bank concentration and government ownership.

Berger (1995) examined the relationship between the Return on Equity and Capital Asset Ratio for a sample of US banks for the 1983-92 time periods. Using the Granger Causality model he showed that ROE and Capital to Asset Ratio were positively related. Neelay and Wheelock (1997) too explored the profitability of a sample of commercial banks in USA for the period 1980-1995. They found that bank's profitability was positively related to the annual percentage changes in the state's per capital income. Even Angbazo (1997) studied the determinants of bank's net interest margin for a sample of US banks for the period 1989-2003. The results of the pooled sample documents

suggested that default risks, opportunity cost of non interest bearing reserves, leverage and management efficiency were positively related with bank interest spread.

In a comprehensive study Demergüç-Kunt and Huizingha (1999) examined the determinants of bank interest margins and profitability on a sample of bank level data for 80 countries for the time periods of 1988-1995. They studied several factors representing individual bank's characteristics as well as macro economic conditions, taxation, regulations, financial structure and legal indicators. The results showed that larger ratio of bank assets to GDP and a lower market concentration ratio led to lower margins and profits. Foreign banks had higher margins and profits than their domestic counterparts in developing countries, while the opposite prevailed in developed countries.

Barajas *et al* (1999) evaluated a sample of banks in Columbia to study the effects of financial liberalisation on bank interest margin. The study revealed that though the overall spread had not declined after financial reforms, the relevance of the different factors behind the bank's spread were affected by such measures. Another changed linked with liberalisation process was the increase of the coefficient of loan quality after liberalisation.

Bashir (2000) examined the determinants of Islamic bank's performance in eight Middle Eastern countries for the period, 1993-1998. A number of internal and external factor were used to predict profitability and efficiencies of the banks. Controlling for macroeconomic environment, financial market situation and taxation, the results show that higher leverage and large loans to asset ratios, led to higher profitability. The foreign-owned banks were found to be more profitable than the domestic banks. There was also evidence that taxation had a negative impact on banks profitability. Finally, macroeconomic setting and stock market development have a positive impact on profitability.

Abreu and Mendes (2002) investigated the determinants of bank's interest margins and profitability for some European countries in the last decade. They reported that well- capitalised banks had better profitability. The results of regression analysis also studied some macro-economic indicators and unemployment rate had a negative relationship with profitability while the inflation was also a relevant variable.

Afanaseiff *et al* (2002) used panel data techniques to study the main determinants of the Tunisian bank's performances for the period 1980-1995. They suggested that the best performing bank's were those who tried to improve labour and capital productivity and those who maintained a high level of deposit accounts relative to their assets and those that were able to reinforce their equity.

Guru *et al* (2002) attempted to identify the determinants of successful deposit banks. They took a sample of 17 Malaysian banks for the period 1986-1995. The profitability determinants were divided into two categories as internal determinants (Liquidity, capital adequacy and expense management) and external determinants (ownership, firm size and external economic conditions). The findings of the study revealed that efficient expense management was one of the most significant variables in explaining high bank profitability. Among the macro indicators, high interest ratio was associated with low bank profitability and inflation was found to have a positive effect on bank performance.

Naceur (2003) investigated the impact of bank's characteristics, financial structure and macro-economic indicators on bank's interest margins and profitability in the Tunisian banking industry for the periods 1980-2000. Individual bank characteristics explain a substantial part of within country

variations in the bank's interest margins and net profitability. High interest margins and profitability tended to be associated with bank's that held high amount of capital and with large overheads. Other important internal determinants of bank's interest margins were bank loans that have had a positive and significant coefficient on the net interest margin. The size had a negative and significant coefficient on the net interest margin. Also the macro-economic indicators as inflation and growth rates had no impact on bank's interest margins and profitability. Also stock market development had a positive impact on banking profitability.

Athanasoglou *et al* (2005) studied the factors affecting profitability of Greek banks for the period 1985-2001. The study had taken bank specific factors (operating efficiency, financial risk and size), industry specific factors (industry concentration and ownership status) as well as macro- economic factors (cyclical output and inflation). GMM technique was applied to panel data. The results suggested that but for size other bank specific determinants significantly affected bank's performance. The profitability was pro cyclical and the effect of business cycle was asymmetric. However, industry variables were not important in explaining bank's profitability.

Badola and Verma (2006) studied all the 27 banks in public sector in India for the period of 13 years from 1991-92-2003-04. Backward estimation method of regression analysis was used. The variables considered for the present study include Spread (S), Non-Interest Income (NII), Credit/Deposit Ratio (C/D), NPA as percentage to Net Advances (NPA), Provision and Contingencies (P&C), Operating Expenses (OE), Business per Employee (BPE), Profit per Employee (PPE) and Net Profit (NP). Net Profit was taken as the dependent variable. The results showed that NPAs, P&C and OE had a negative impact on the Net profits while S, NII, C/D, BPE and PPE had a positive impact on the profitability of banks.

Singh and Chaudhary (2009) studied the determinants of profitability in public sector, private sector and foreign sector banks in India from 2000-01 to 2006-07. Both bank specific determinants (investment, advances, deposits and assets) as well as macro- economic determinants (per capital income, exports, foreign exchange ratio etc.) were taken. The results of simple regression analysis showed that investments had significant impact on the operating profitability for all the banks in all the three sectors. However, advances, deposits and assets affected profitability of private sector and foreign sector banks only. Even the macro-economic determinants affected the profitability significantly.

Manoj (2010) studied only the old private sector banks based in Kerela state (KOPBs). Operating profit ratio (OPR) was taken as the dependent variable while operational efficiency in terms of Net Interest Margin was the independent variable. Other variables controlled were assets, investment in government securities, non interest income, and ratio of rural braches to semi urban and metropolitan braches. The results of regression analysis showed a significant and positive relation between OPR and non interest income. However there was a strong negative relationship between net interest margin and investment in government securities.

NEED OF THE STUDY

Liberalisation of Indian economy commenced since 1991. It led to introduction of many banking sector reforms by several committees set up in the country as Chakraborty Committee, Narasimham

Committee etc. As a result, there has been reduction in CRR and SLR; variations in interest rates and deregulations and adaption of prudential norms. All this has changed the face of the Indian banking industry and has encouraged deregulated and privatised environment. Though many studies have been carried out in different countries of the world to find the determinants of profitability of the banking sector, like USA, Saudi Arabia, Greece, Malaysia, India and many European countries as well. These studies have taken diverse variables both at the micro as well as the macro level. But, a country like India which has been recently liberalised and is facing competition not only at the international level but also within its home boundaries, needs a revaluation so that its profitability could be sustained in the present competitive environment. Hence, the present study.

Objectives of the paper

The major objective of the paper is to find the determinants affecting profitability of the banks operating in private sector in India.

DATA BASE AND METHODOLOGY

Sample

A sample of 23 private sector banks in India has been taken. These 23 banks are represented by 15 banks in the old private sector and 8 banks in the new private sector. The private sector has been chosen because banks in private sector have emerged as dominating entities in the era of liberalisation, privatisation and globalisation.

Time Period

The determinants affecting the profitability in banks have studied for 4 years, that is, 2006-07 to 2009-10. This period is relevant because it represents the post recession period during which the banks in developed nations like USA have been affected badly. An assessment of profitability in the Indian banks too needs to be made during this relevant time period.

Data source

The information pertaining to the dependent and independent variables has been taken from the statistics available at the websites of Reserve Bank of Indian and Indian Banking Association.

VARIABLES

Dependent Variables

Return on Assets (ROA) is taken as the dependent variable as it reflects as to how well a bank's management is using the banks real investment resources to generate profits.

It is calculated as:

$$\text{ROA} = \text{Net Income} / \text{Total Assets}$$

Independent Variables

1. Spread Ratio: Spread represents the difference of Interest received and interest paid. The ratio is calculated as a percentage spread to total assets. The higher the ratio, the more will be the profitability. It can be written as, $\text{Spread Ratio} = \text{Spread} / \text{Total Assets}$.

2. Provision and Contingencies: These represent a portion of profits kept for contingent situations and expenditure and thus have a direct bearing on the profitability.
3. Non Interest Income: This represents income of a bank from its allied and non-banking activities. Banks should operate at lower cost to increase profitability. This is calculated as, Non-interest income/Total Assets.
4. Credit Deposit Ratio: it is calculated as, Total advances/total deposits. The ratio bears a positive relationship with profitability as it highlights effective utilisation of deposits which are the major and cheapest source of revenue to the bank. However, a lower ratio may indicate that the deposits are merely serving as a burden to the banking business.
5. Operating Expense Ratio: It is calculated as, Operating Expenses/Total expenses. The ratio has a negative relationship with profitability as it high ratio highlights operational inefficiency of a bank.
6. Profit per employee: It is calculated as, Net profits/total number of employees. The ratio has a positive relation with profitability and depicts employee efficiency.
7. Business per employee: The ratio is calculated as, Deposits+ Advances/ Total number of employees. The ratio bears a positive relation with profitability as it highlights the efficiency of human resources in relation to the core business of banking.
8. Investment Deposit Ratio: This is calculated as, Investments/Deposits. The ratio highlights the efficiency of a bank to invest its deposits and surplus cash so as to generate profits.
9. Capital Adequacy Ratio: This is calculated as, Capital/ Risk Weighted Assets of a business. In the adoption of risk management strategies by a bank the ratio determines the cushion available to a bank against the credit risk, operational risk and market risk.
10. Non Performing asset ratio: this is calculated as, NPA/Total assets. The ratio bears a negative relationship with profitability as it indicates the credit risk of the bank
11. Type of Bank: The total sample of 23 banks is represented by 15 'old private sector banks' and 8 'new private sector banks'. Hence in order to see whether the new banks outperform their old counterparts or vice versa, the type of bank has been taken as the dummy variable. The value of 1 has been given if the bank represents the old private sector; otherwise the value 0 has been assigned.

The data for the entire period 2006-07 to 2009-10 has been averaged for the dependent and independent variables.

HYPOTHESES OF THE STUDY

The hypotheses of the study are:

- H_1 : The higher the spread ratio, the more will be the profitability.
- H_2 : Provisions and Contingencies have a negative relationship with profitability.
- H_3 : Non Interest Income bears a positive relationship with profitability.
- H_4 : Credit Deposit ratio bears a positive relationship with profitability.

- H_5 : Operating Expense ratio has a negative relationship with profitability.
- H_6 : Business per employee bears a positive relation with profitability.
- H_7 : Profit per Employee has a positive relation with profitability and depicts employee efficiency.
- H_8 : Investment Deposit ratio bears a positive relation with profitability as more the profitable investments, more would be the profitability.
- H_9 : Capital Adequacy ratio bears a positive relationship with profitability.
- H_{10} : Non Performing Assets bears a negative relation with profitability as it highlights poor credit management of the banks.
- H_{11} : New private sector banks outperform old private sector banks.

STATISTICAL TOOLS USED

Backward Stepwise Regression Analysis has been used to find the impact of determinants of profitability on the performance of banks in India. SPSS 15 version of the software has been used. The data for all the dependent and explanatory variables have been averaged for the years 2007-2010. The coefficient of regression suggests the direction of relationship between the variables while the t values suggest the level of significance. The adjusted R^2 suggests the proportion of variation in the dependent variable as explained by the independent variables. The problem of multi-collinearity has been diagnosed through Pearson Correlation. The problem of auto correlation has been checked through Durbin Watson. The following regression model has been framed:

$$Y = \hat{\alpha}_0 + \hat{\alpha}_1 X_1 + \hat{\alpha}_2 X_2 + \hat{\alpha}_3 X_3 + \hat{\alpha}_4 X_4 + \hat{\alpha}_5 X_5 + \hat{\alpha}_6 X_6 + \hat{\alpha}_7 X_7 + \hat{\alpha}_8 X_8 + \hat{\alpha}_9 X_9 + \hat{\alpha}_{10} X_{10} + \hat{\alpha}_{11} X_{11} + \hat{\alpha}_{12}$$

Where

Y = Profitability (ROA)

X_1 = Spread

X_2 = Credit Deposit Ratio

X_3 = Non Performing Assets

X_4 = Operating Expenses

X_5 = Business per Employee

X_6 = Profit per Employee;

X_7 = Investment Deposit Ratio

X_8 = Capital Adequacy Ratio

X_9 = Provisions and Contingencies

X_{10} = Non Interest Income

X_{11} = Dummy (Old private sector banks=1, new private sector banks=0);

$\hat{\alpha}$ = Slopes of the independent variables while $\hat{\alpha}_0$ is a constant or the value of Y when all values of X are zero;

$\hat{\alpha} = \hat{\alpha}_t$

RESULTS AND DISCUSSION

The results can be summarised as follows:

Table1: Matrix of Pearson Coefficient of Correlation

	ROA	Spread	CD	NPA	opexp	BPE	PPE	ID	CAR	PC	NII
ROA	1										
Spread	.319**	1									
CD Ratio	.113*	.219	1								
NPA	-.753***	-.057	.376**	1							
Opt Exp	-.309***	.548*	.292***	.345**	1						
BPE	.307***	-.516*	.262	-.292***	-.433**	1					
PPE	.737	-.115	.277***	-.569*	-.347**	.794*	1				
ID Ratio	.044	.183	.599*	.182	.376**	.333***	.376**	1			
CA	.241	.227	-.062	-.135	.081	-.082	.186	.122	1		
PC	.087	.565*	.428**	.129	.221	.004	.022	.234	-.096	1	
NII	-.146	-.256	.579*	.190	.293***	.552	.317***	.517*	-.271	-.293***	1

Note: *, **, *** significant at 1%, 5% and 10% level respectively.

Table 1 shows the matrix of correlation that studies the problem of multi-collinearity. If the value is 0.80 or more then there exists a problem of multi-collinearity. Table 1 state that multicollinearity is an issue of concern in the case of Business per Employee (BPE) and Profit per Employee (PPE). The variables BPE and PPE have coefficient of correlation of 0.794 which is also significant at 1% level of significance. Thus, the problem of multicollinearity exists between these measures for the period. Rest of the variables do not have problem of multicollinearity among them for the said period. However, in application of backward stepwise regression, BPE has been removed automatically.

Table 2 : Backward Stepwise Regression Analysis

Model/ Independ-ent variables	1	2	3	4	5
Constant	.402(.660)	.154(.469)	.025(.116)	.084(.436)	.149(.817)
Spread	.942(4.243)*	.992(5.205)*	.967(5.390)*	1.048(7.743)*	1.020(7.710)*
CD Ratio	.004(.657)	.004(.644)	.004(.706)	X	X
NPA's	-.180(-1.871)***	-.167(-1.866)***	-.160(-1.856)***	-.116(-1.986)***	-.111(-1.908)***
Opt Exp	-.063(-4.050)*	-.062(-4.154)*	-.058(-4.488)*	-.063(-5.735)*	-.059(-5.731)*
BPE	0.000(-.490)	X	X	X	X
PPE	.058(1.944)***	.049(2.140)***	.055(2.714)***	.058(2.993)***	.066(3.693)***
ID Ratio	-.015(-2.289)**	-.015(-2.588)**	-.015(-2.644)**	-.015(-2.714)**	-.015(-2.658)**
CAR	.005(.991)	.005(1.040)	.005(.968)	.005(.991)	X
PC	-.794(-3.636)*	-.829(-4.159)*	-.796(-4.328)*	-.858(-5.40)*	-.832(-5.319)*
NII	.073(2.823)**	.074(2.986)**	.073(3.036)**	.084(4.499)*	.076(4.477)*
Dummy	-.095(-.703)	-.056(-.529)	X	X	X
R ²	0.968	0.968	0.967	0.966	0.963
Adjusted R ²	0.936	0.940	0.944	0.946	0.946
F-statistics	30.474*	35.760*	42.030*	48.976*	55.90*
Durbin Watson	2.188	2.188	2.188	2.188	2.188

Note: *, **, *** significant at 1%, 5% and 10% level respectively

Table 2 shows that five cross-sectional regression equations have been framed for the financial years 2006-07 to 2009-2010 for the final analysis. The results for multivariate regression analysis (regression equation 1) show that the spread as percentage of Assets is positive at 1% level of significance. Non performing Assets as percentage of net advances are negative at 10 % level of significance. Also, Operating expenses as a percentage of total expenses are negative at 1% level of significance. However, Profit per employee has a positive association with ROA at 10% level of significance. Investment deposit Ratio is negative at 5% level of significance, Provisions and contingencies as a percentage of total assets are also negative at 1% level of significance while Non Interest Income as percentage of Total Income has a positive relationship with ROA at 5% level of significance. Rest of the variables, as credit deposit ratio, Business per employee, Capital adequacy ratio and the dummy variable representing old private sector and new private sector banks could not significantly influence the ROA in the first regression equation.

Also, the value of R² is 0.968. It explains that 96.8% variation in model is explained by all independent variables jointly. The value of adjusted R² is 0.936 which states that 93.6% variation in

ROA is explained by variations in independent variables. The value of F statistics is 30.474 and is significant at 1% level which shows the fitness of the model. The value of Durbin-Watson is 2.188 which states that there is no problem of autocorrelation. Afterwards, variables were removed one by one to see the impact of independent variables on ROA to get the best-fit model.

Following the statement by Gujarati (2006; p.260) the regression equation 5 has been chosen for the final analysis. The selected regression equation in Table 2 approximates the value for adjusted R^2 (0.963) explains hereby that 96.3 % variations in ROA score is explained by indicators namely Spread, NPAs, Investment deposit ratio, Profit Per Employee, Provisions and Contingencies, Non Interest Income of private sector banks.

The Spread as percentage of assets is positive at 1 % level of significance. Both Non-performing Assets as percentage of net advances and operating expenses as a percentage of total expenses have negative association with ROA and are significant at 10% and 1% level of significance respectively. Profit per employee is positive at 10% level of significance. But, Investment deposit Ratio is somehow showing a negative relationship with ROA at 5% level of significance. Provisions and contingencies as percentage of total assets are negative at 1% level of significance and Non Interest Income as percentage of Total Income influences the profitability (ROA) positively and significantly at 10% level for all private sector banks. The value of F-statistics is 55.90 and is significant at 1% level which indicates that the model is best-fit model.

In nutshell, the results indicate that the backward stepwise regression model has significant explanatory power. The value of R^2 (0.963) states that 96.3% variations in ROA is explained by independent variables. The adjusted R^2 (0.946) suggests that approximately 94.6% of the overall variation in ROA is explained by variations in the independent variables. Additionally, to test the assumption of independent errors (autocorrelation), the Durbin-Watson statistic was used. The value of this statistic between 1.5 and 2.5 is considered as better and for this data the value is 2.188 in Table 2. In sum, the diagnostics indicate the model to be valid and reliable.

DISCUSSION

Our hypothesis (H_1), that is, higher the spread ratio, the more would be the profitability has been accepted. Obviously, the hypothesis satisfies the rationality behind it. As the spread represents the difference between interest received and interest paid by a bank on its loan and deposits respectively, so it ought to result in a positive association with profitability unless the banks have a problem of asset liability mismatch. Angbazo (1997) supports our results and found a positive association between spread and net interest margins on a sample of US banks. Our results are also in conformity with Badola and Verma (2006) who highlighted a positive association between spread and net profits in case of Public sector banks in India. The hypothesis (H_2) that states that Provision and Contingencies have a negative relation with profitability to has been accepted and is supported by Badola and Verma (2006) in his study on Indian banks operating in the Public sector.

Banks these days tend to diversify into non core areas, popularly known as the fee based services of banking industry, thus generating non -interest income to banks. Our hypothesis (H_3) that non-interest income is positively related with ROA has been accepted. It is supported by Manoj (2010) who suggests a positive association between Operating Profit Ratio and Non –interest income in case of old private sector banks in Kerala. Our results with respect to non interest income are also similar to Angbazo (1997) in case of USA banks.

Also, all banks in order to increase profitability should focus on reducing operating expenses. Hence, hypothesis (H_3) that operating expenses have a negative impact on profitability too has been accepted. The results of present study corroborate with Guru *et al* I (2002) who stressed on effective expense management to increase profitability. Hypothesis (H_6) that suggested a positive association between Business per employee and ROA too has been accepted. This is supported by Anaseiff *et al* (2002) in his study who suggested that those banks who tried to improve labour productivity generated more profits. Hypothesis (H_{10}) that Non -performing assets have negative relationship with profitability too has been accepted. First and foremost it is supported by the theoretical argument that NPAs definitely hamper the profitability by increasing credit risk and in turn the liquidity risk. NPAs lead to asset liability mismanagement. Our results coincide with those given by Badola and Verma (2006).

However, our hypothesis (H_8) that investment deposit ratio bears a positive relationship with profitability has been rejected. Our results show a negative and a significant association between Investment deposit ratio and ROA. The results of present study are contradictory to Singh and Chaudhary (2009) who found a positive association between Investment deposit ratio and profitability in case of both public sector and private sector banks in India. This difference is perhaps because their study is for the period 2000-01 to 2006-07. The period of our study is from 2006-07 to 2009-10, which exactly represents the post recession phase of the economy. Perhaps during this period of time the investments were not repaying many profits due to the spill over effects of recession in various sectors of the economy including the stock markets. However, our results can be suggested to be supported by Manoj (2010), though indirectly who found a strong negative association between investment in government securities and net interest margin in case of old private sector banks in case of banks in India.

CONCLUSION

The study has identified the indicators of profitability of private sector banks in India. It is believed that first the bank specific factors which represent the internal efficiency of any bank ought to be analyzed and improved; only then the macro and external factors could be faced. A bird's eye view of results as shown in Table 3 compares the expected relationship of independent variables with profitability in terms of ROA and the results of the present study.

Table 3: A snap shot of results (comparison of expected relationship and actual results)

Independent variables	Level of significance	Expected relationship with Profitability (ROA)	Results of the present study
Spread	Significant at 1 %	Positive	positive
Credit deposit ratio	Insignificant	Positive	positive
Non Performing Assets	Significant at 10 %	Negative	Negative
Operating Expenses	Significant at 1 %	Negative	Negative
Profit Per Employee	Significant at 10 %	Positive	Positive
Investment Deposit Ratio	Significant at 5 %	Positive	Negative
Capital Adequacy Ratio	Insignificant	Positive	Positive
Provisions & Contingencies	Significant at 1 %	Negative	Negative
Non Interest Income	Significant at 1 %	Positive	Positive

As can be seen from Table 3, the actual results coincide with the expected results in terms of all the variables as Spread ratio, Credit deposit ratio, Profit per employee, Business per employee, Capital adequacy ratio and Non interest income that show a positive association with profitability measured in terms of ROA. However, one variable, that is, Investment deposit ratio has a negative relationship with profitability against the expected relationship. It is perhaps because the Indian economy was passing through a phase of global recessionary pressures where the bank's investments could not prove very fruitful. However, private sector banks need to be cautious with respect to their investments as the Investment Deposit Ratio has a strong bearing on a banks' asset-liability management in the long run. Similarly, other independent variables as, Non- performing assets, operating expenses and Provisions and Contingencies have a negative association with ROA as expected. NPAs indicated failure of bank's assets to regenerate. Provisions and contingencies are a reduction in profits and obviously the lesser the operating expenses, more is the profitability and vice versa. Hence, banks should take measure to reduce NPAs and operating expenses in order to have enhanced profitability.

Thus it can be concluded that the financial system has expanded from national to international boundaries. There is a paradigm shift in marketing philosophy from the rising focus towards quality of service for customers. From traditional functions of accepting deposits and granting loans and advances banks have diversified into allied businesses. There is rising stress on improving operational efficiency rather than just focussing on Profitability. There is a shift from: Revenue Model based on, Cost + Profit concept to Cost Model based on, Revenue – Profit concept. Hence, an in depth study of the bank specific factors and their impact on the profitability of banks would lead to further growth and increase in efficiency and profitability of the banks, which is the need of the privatised and the globalised economy.

REFERENCES

- Abreu M and Mendes V (2000), Commercial Bank Interest Margins and Profitability: Evidence for Some EU Countries, presented on the 50th International Atlantic Economic Conference. (www.iaes.org/conferences/past/charleston_50/prelim_program/index.htm)
- Afanasieff T, Lhacer P and Nakane M (2002), "The determinants of bank interest spreads in Brazil", Banco Central di Brazil Working Papers.
- Angbazo L (1997), "Commercial bank net interest margins, default risk, interest-rate risk, and Off-balance sheet banking", *Journal of Banking and Finance*, 21: pp 55-87.
- Athanasoglou P P, Brissimis S N and Delis M D (2005), Bank specific, industry- specific and macroeconomic determinants f bank profitability, Working Paper 25, Bank of Greece.
- Barajas A, Steiner R, and Salazar N (1999), "Interest spreads in banking in Colombia 1974-96", *IMF Staff Papers*, 46: pp 196-224.
- Bashir A (2000). "Assessing the Performance of Islamic Banks: Some Evidence from theMiddle East", Paper presented at the ERF 8th meeting in Jordan.
- Badola B S and Verma R (2006), "Determinants of profitability of Banks in Indian: A Multivariate Analysis", *Delhi Business Review* X, 7 (2): pp 79-88.

Bhatia, Mahajan & Chander

Bashir A (2000), "Determinants of Profitability and Rates of Return Margins in Islamic Banks: Some Evidence from the Middle East," Grambling State University, Mimeo.

Berger A (1995), "The Relationship between Capital and Earnings in Banking," *Journal of Money, Credit Banking*, 27(2): pp 432-456.

Demirguc-Kunt A and H Huizinga (1999), "Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence," *World Bank Economic Review*, 13: pp 379-408.

Gujarati D N (2006), *Basic Econometrics*, Tata McGraw Hill Education Private Ltd, New Delhi.

Guru B J S and Balashanmugam B (2002), "Determinants of Commercial Bank Profitability in Malaysia", *University Multimedia Working Papers*.

Manoj P K (2010), "Determinants of Profitability and Efficiency of Old Private Sector Banks in India with Focus on Banks in Kerala State: An Econometric Study", *International Research Journal of Finance and Economics*, 47: pp 7-20. (Also available at <http://www.eurojournals.com/finance.htm>)

Molyneux P and Thornton J (1992), "Determinants of European Bank Profitability: A Note," *Journal of Banking and Finance*, 16(6): pp 1173-1178."

Naceur S B (2003), "The Determinants of the Tunisian Banking Industry Profitability: Panel Evidence," *Universite Libre de Tunis Working Papers*.

Neely M C and Wheelock D C (1997), "Why does bank performance vary across states?" *Review, Federal Reserve Bank of St. Louis* 0: pp 27-38.

Singh R K and Chaudhary S (2009), "Profitability Determinants of Banks in India", *International Journal of Global Business*, 2 (1): pp 163-180.

DIVIDEND PAYOUT TRENDS IN THE INDIAN STEEL INDUSTRY: A COMPARATIVE ANALYSIS OF TATA STEEL LTD AND STEEL AUTHORITY OF INDIA LTD.

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ABSTRACT

Dividend may be defined as the distribution of a certain portion of a firm's profit among its shareholders. The management of a firm should develop a sound dividend policy in an optimum way so as to achieve the objectives of maximizing the wealth of the shareholders. The present study is an attempt to examine the dividend payout trends of two leading Indian Steel companies, namely Tata Steel Ltd. and SAIL during the period 2003-2004 to 2007-2008.

Secondary data collected from the published annual reports of the sample companies are used in the study. DPS and DPR are examined to evaluate the dividend policy of the selected companies. To statistically examine whether there is any significant difference in the average dividend payout ratio between the two selected companies, Fisher's 't' test has been applied in the study. Apart from it, Karl Pearson's simple correlation analysis, regression analysis and Chi-square test has also been used in the study.

The findings of the study reveal that both the ratios (i.e., DPS and DPR) of Tata Steel are better than that of SAIL. Size of the business is found to be the influencing factor of dividend policy for both the companies under study. Beside, earnings per share are also found to be the influencing factor for Tata Steel Ltd. In respect of dividend payout trends, both the sample companies' shows marginal deviations between the actual DPR and estimated DPR, which are found to be insignificant. Further, Fisher's 't' test shows that the average dividend payout performances of both the selected companies are similar during the study period.

On the whole, it may be concluded that the dividend payout of both the selected companies are satisfactory, with Tata Steel more consistent in its performance than that of SAIL.

Key words: Dividend Payout Ratio, Dividend Per Share, Earnings Per Share.

THEORETICAL BACKGROUND

In the literature of financial management, dividend policy is one of the important decision areas, where a firm has to make a choice between distribution of profit to the shareholders and retaining

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them back into business for growth and development. The ultimate objective of a firm is the maximisation of its value or that of its shares.

In simple term, dividend may be defined as the distribution of a certain portion of a firm's profit among its shareholders. The investors are interested to maximize their return on investment while a firm on the other hand, needs funds for its growth and expansion programmes. Therefore, management of a firm should develop a sound dividend policy in an optimum way so as to achieve the objectives of maximizing the wealth of the shareholders.

THE PROBLEM FOCUS

Since 1991, Indian economy has undergone sea change in the wake of privatization, globalization and liberalization. The door of economy is now wide open to the multinational giants for investment. This has resulted in a competitive environment, where the Indian companies are to compete with the best. Obviously, a sound financial management performance is the need of the hour. In particular, dividend decision forms one of the important decision making area in the sphere of financial management. Notable studies that have been carried out in this area are Lintner (1956), Miller and Modigliani (1961), Gordon (1962), Walter (1963), Dhameja (1978), Aharony and Swary (1980), De Angelo (1991), Bhat and Pandey (1994), Fudenberg and Tirole (1995), Gupta, A., (1999), Gugler (2003), and Jahur and Nazneen (2005).

In this backdrop, the present study is an attempt to contribute to the existing literature by examining the dividend payout trends of two leading Indian Steel companies during the period 2003-2004 to 2007-2008.

RESEARCH OBJECTIVES

The main objective of the present study is to examine the dividend payout trends of two leading Indian steel companies, namely Tata Steel Ltd. (TSL) and Steel Authority of India Ltd. (SAIL).

To attain this main objective, the following incidental objectives are sought to be achieved:

- i. To examine the dividend policy on the basis of some important ratios.
- ii. To examine the important factors influencing the dividend policy.
- iii. To examine the dividend payout trends.

RESEARCH HYPOTHESES

In conformity with the objectives stated above, the following hypotheses have been framed as under:

- i. There are significant differences between the actual and estimated values with respect to dividend payout ratio of the selected companies.
- ii. There is significant difference between the average dividend payout ratios of the selected companies.

RESEARCH METHODOLOGY

The study has been carried out for a span of five years i.e., during the period 2003-04 to 2007-08. For this purpose, secondary data have been used which are collected from the published

annual reports of the sample companies. The reason behind selecting this study period is the availability of data for both the selected companies. Moreover, both the companies (except SAIL in the year 2003-04) were found to have distributed dividend in all the years during the chosen study period.

SELECTION AND DESCRIPTION OF VARIABLES

- 1 Dividend Per Share (DPS) = Dividend paid by the Company ÷ Number of Equity Shares Outstanding at the End of the Year

[This ratio indicates the dividend paying capacity of a company in a particular financial year]

2. Dividend Payout Ratio (DPR) = (Dividend Distributed ÷ Net Earnings) * 100

[This ratio indicates the extent of the earnings after taxes and preference dividend paid out as dividend to the equity shareholders. Hence, it reflects the nature of dividend policy followed by the company]

3. Earnings Per Share (EPS) = (Net Profit after Tax - Gross Preference Dividend) ÷ Number of Equity Shares

[This ratio is an indicator of profitability of investment from the point of view of the shareholders. It is one of the most important determinants of dividend policy]

4. Current Ratio (CR) = Current Assets ÷ Current Liabilities

[This ratio is the indicator of short-term liquidity position of a firm. Liquidity implies the firm's capacity to meet its current obligations in due time. The standard of this ratio is taken at 2:1]

5. Capital Employed (CE) = Net Fixed Assets + Net Working Capital

[It is an indicator of the size of business / scale of operation of a company. It represents the amount of funds invested in the business]

TOOLS AND TECHNIQUES FOR DATA ANALYSIS

- i. After collection of necessary data, these have been suitably re-arranged, classified and tabulated as per requirements of the study. Necessary calculations have been performed by using SPSS software package.
- ii. Descriptive Statistics: It comprises of calculating mean, standard deviation and coefficient of variation in order to facilitate comparison between the two selected companies.
- iii. Ratio analysis has been applied to evaluate the dividend policy of the companies selected for the study. For this purpose, DPS and DPR are examined to evaluate the dividend policy of the selected companies. To statistically examine whether there is any significant difference in the average dividend payout ratio between the two selected companies, Fisher's 't' test has been applied in the study. The fisher's 't' statistic is computed as follows:

$$t = (\bar{x}_1 - \bar{x}_2) \div S\sqrt{1/n_1 + 1/n_2}$$

Where:

$$S = \sqrt{(n_1 s_1^2 + n_2 s_2^2) \div (N + n_2 - 2)}$$

- iv. To examine the influence of liquidity (represented by CR), profitability (represented by EPS) and size of the business (represented by CE) on the dividend policy of the selected companies, Karl Pearson's simple correlation analysis has been used. The Karl Pearson's correlation coefficient is computed below:

$$r_{xy} = \frac{(n \sum x_i y_i) - \sum x_i * \sum y_i}{\sqrt{n \sum x_i^2 - (\sum x_i)^2} * \sqrt{n \sum y_i^2 - (\sum y_i)^2}}$$

The popular 't' test has been used to judge whether the correlation coefficients are significant or

not. The 't' statistic is shown below:

$$t = r \div \left\{ \sqrt{(1-r)^2 / (n-2)} \right\}$$

Where:

r = correlation coefficient; n - 2 = degrees of freedom

- v. To examine the dividend payout trends of the selected companies, the following regression model has been applied in the study:

$$y = ax^3 + bx^2 + cx + d$$

The above stated regression model is used on the ground that it has the best fit for our study period.

- vi. To examine, whether the estimated and actual dividend payout ratio is significant or not, Chi-square test has also been applied.

The Chi-square statistic is computed as follows:

$$\chi^2 = \sum \{(f_o - f_e)^2 / f_e\}$$

Where: f_o = observed frequency, f_e = expected frequency

EMPIRICAL FINDINGS AND ANALYSIS

1 Dividend Policy of TATA Steel Ltd. and SAIL

Table I

Selected Parameters relating to Dividend Policy of Tata Steel Ltd.

Year	CR	EPS (Rs.)	CE (Rs. in Crores)	DPS (Rs.)	DPR
2003-2004	0.97	31.55	7951.00	1.00	0.24
2004-2005	1.00	62.77	9495.83	1.30	0.24
2005-2006	1.06	63.35	10293.93	1.30	0.23
2006-2007	3.02	73.76	19288.79	1.55	0.26
2007-2008	0.94	61.63	42817.22	1.60	0.30
Mean	1.40	58.61	17969.35	1.35	0.25
S.D	0.91	15.90	14579.42	0.24	0.03
C.V	65.00%	27.13%	81.13%	17.78%	12.00%

Table II

Selected Parameters relating to Dividend Policy of SAIL

Year	CR	EPS (Rs.)	CE (Rs. in Crores)	DPS (Rs.)	DPR
2003-2004	2.79	18.25	12423.86	NIL	NIL
2004-2005	3.14	15.02	16652.63	3.30	0.20
2005-2006	2.14	9.72	17117.73	2.00	0.21
2006-2007	2.15	16.50	21064.87	3.10	.021
2007-2008	1.34	6.08	24690.18	3.70	0.20
Mean	2.31	13.11	18389.85	2.42	0.16
S.D	0.69	5.06	4665.81	1.49	0.09
C.V	29.87%	38.60%	25.37%	61.57%	56.25%

Dividend Per Share (DPS)

From Table - 1, it is observed that the DPS of Tata Steel ranged between Rs.1.00 in 2003-2004 to Rs.1.60 in 2007 - 2008 with an average of Rs.1.35. The S.D is Rs. 0.24 and C.V is 17.78%. It is also observed that the DPS of Tata Steel shows an increasing trend during the period under study.

On the other hand, DPS of SAIL (Table - 2) shows a fluctuating trend during the study period. It varied between Rs.0.00 in 2003 - 2004 to Rs.3.70 in 2007-2008 with an average of Rs.2.42. The S.D is Rs.1.49 and C.V is 61.57%, which shows lack of consistency during the study period.

Dividend Payout Ratio (DPR)

As per Table - 1, it is observed that the DPR of the Tata Steel ranged between 0.23 to 0.30 with an average of 0.25 during the study period. The S.D of the ratio is 0.03 and C.V is 12.00%. The DPR of Tata steel Ltd. shows almost an increasing trend (except the year 2005 - 2006) during the study period.

In case of SAIL, the DPR (Table – 2) shows no definite trend throughout the study period. It varied between 0.00 to 0.21 with an average of 0.16. The S.D of the ratio is 0.09 and C.V is 56.25%, which indicates that the ratio has highly fluctuated during the period under study.

Earning Per Share (EPS)

Table - 1 reveals that EPS of Tata Steel ranged between Rs.31.55 in 2003-2004 to Rs.73.66 in 2006-2007 with an average of Rs.58.61. It shows an increasing trend except the last year (i.e., 2007-2008) during the period under study. The S.D is Rs.15.90 and C.V is 27.13%.

On the other hand, Table – 2 shows that the EPS of SAIL ranged between Rs.6.08 in 2007-2008 to Rs.18.25 in 2003-2004 with an average of Rs.13.11. Its EPS reveals a mixed trend with a S.D of Rs.5.06 and C.V at 38.60% during the study period.

It clearly indicates that Tata Steel has utilized its resources judiciously, thereby leading to its increased earning power than that of SAIL.

Current Ratio (CR)

From Table - 1, it is observed that the CR of Tata Steel ranged between 0.94 to 3.02 with an average of 1.40. The S.D of the ratio is 0.91 and C.V is 6.5%. In terms of the conventional standard norm of 2:1, the CR performance of Tata Steel is not satisfactory.

Table - 2 indicates that the CR of SAIL ranged between 1.34 in 2007-2008 to 3.14 in 2004-2005 with an average of 2.31. The S.D is 0.69 and C.V is 29.87%. The ratio remained above the standard norm of 2:1 during all the years (except 2007-2008).

Capital Employed (CE)

Table-1 reveals that CE in Tata Steel has shown an increasing trend from Rs. 7951.00 crores in 2003-2004 to Rs. 42817.22 crores in 2007-2008 with an average of Rs.17969.35 crores. The S.D is Rs.14579.42 crores and C.V is 81.13%. In case of SAIL, CE (Table - 2) also shows an increasing trend from Rs.12423.86 crores in 2003-2004 to Rs.24690.18 crores in 2007-2008 with an average of Rs.18389.85 crores. The S.D is Rs. 4665.81 crores and C.V is 25.37%.

Thus, it can be stated that both the companies under study has followed expansion and promotional strategy during the study period.

2 Factors Influencing Dividend Policy of the Selected Companies

Table III

**Karl Pearson's Correlation Co-efficient between DPS and each of the
Selected Parameters i.e., CR, EPS, and CE of Tata Steel Ltd. and SAIL**

Parameters	Correlation Coefficient(r) of Tata Steel Ltd.	Correlation Coefficient(r)of SAIL
Correlation Coefficient Between DPS and CR	0.455 ⁱ	-0.414 ⁱ
Correlation Coefficient Between DPS and EPS	0.840 *	-0.530 ⁱ
Correlation Coefficient Between DPS and CE	0.772 *	0.838 *

Key Notes:

* marked values indicate significant at 1% level

ⁱ marked values indicate insignificant

From Table - 3, it is observed that the correlation co-efficient between DPS and CR of Tata Steel and SAIL are 0.455 and -0.414 respectively, which are found to insignificant. Secondly, the correlation co-efficient between DPS and EPS of Tata Steel is 0.840 which is found to be significant at 1% level. For Tata Steel, the correlation coefficient between DPS and EPS is -0.530 which is insignificant. Thirdly, the correlation co-efficient between DPS and CE of Tata Steel and SAIL are 0.772 and 0.838 respectively which are significant at 1% level.

3 Trend Analysis of DPR

Table IV

Dividend Payout Trends in Tata Steel Ltd. & SAIL

Year	DPR (Actual) Tata Steel	DPR (Trend) Tata Steel	Surplus/(Deficit) Tata Steel	DPR (Actual)SAIL	DPR (Trend)SAIL	Surplus/ (Deficit)SAIL
03-04	0.24	0.24029	-0.00029	0.00	0.00029	-0.00029
04-05	0.24	0.23886	0.00114	0.19	0.19114	-0.00114
05-06	0.24	0.24171	-0.00171	0.23	0.22829	0.00171
06-07	0.26	0.25886	0.00114	0.20	0.20114	-0.00114
07-08	0.30	0.30029	-0.00029	0.20	0.19971	0.00029

Chi-Square Test:

Tata Steel: $\Sigma^2 = 0.00002287391^i$

SAIL: $\Sigma^2 = 0.00031349018^i$

Key Notes: ⁱ marked values indicates insignificant :
Critical Value of $\Sigma^2 = 11.14$ (at 5% level)

From Table - 4, it is observed that the actual dividend is more than the estimated dividend in two years (i.e., 2004-2005 & 2006-2007) out of the 5 years under study in Tata Steel Ltd. On the other hand, the actual dividend is more than the estimated dividend in two years (i.e., 2005-2006 & 2007-2008) out of 5 years in SAIL during the study period. In rest of the cases, the deviations are negative (although very marginal) for both the companies under study. Further, Chi - Square test shows that the deviations between actual and estimated DPR for both the companies are insignificant, thereby leading to the rejection of the first hypothesis of the study.

4 Comparison of Average Dividend Payout Ratio between Tata Steel & SAIL

To examine whether there is any significant difference between the average dividend payout ratio of Tata Steel and SAIL, Fisher's 't' test has been applied at 5% level of significance, which is shown in Table - 5 below:

Table V

Fisher's 't' Test for Average Dividend Payout Ratio of Tata Steel Ltd. and SAIL

Particulars	Average Dividend Payout Ratio
Null Hypothesis (H_0) Alternative Hypothesis (H_1)	There is no significant difference between the average dividend payout ratio of Tata Steel and SAIL There is significant difference between the average dividend payout ratio of Tata Steel and SAIL
Degree of Freedom (D.F.)	$(5+5-2) = 8$
Level of Significance	5%
Critical Value of 't'	2.31
Calculated Value of 't'	1.16
Result	H_0 accepted

Table: 5 shows that H_0 is accepted as the calculated value of 't' (1.16) is less than the critical value of 't' (2.31) at 5% level of significance, thereby indicating that there is no significant difference between the average dividend payout ratio of Tata Steel and SAIL during the period under study. This leads to the rejection of the third hypothesis of our study.

CONCLUDING OBSERVATIONS

- i. Dividend per share and dividend payout ratio of Tata Steel almost recorded an increasing trend. On the other hand, such increasing trend is not reflected in SAIL. The consistency of both the ratios (i.e., DPS and DPR) of Tata Steel is better than that of SAIL.
- ii. Size of business is found to be the influencing factor of dividend policy for both the companies under study. Beside, earnings per share are also found to be the influencing factor for Tata Steel. In rest of the cases, the results are found to be insignificant.
- iii. The dividend payout trends of both the selected companies shows marginal deviations between the actual DPR and estimated DPR, which are found to be insignificant during the study period. This is indicative of the fact that both the companies under study followed optimum dividend payout policy during the study period.
- iv. Fisher's 't' test shows that the average dividend payout performances of both the selected companies are similar during the study period.

On the whole, it may be concluded that the dividend payout trends of both the selected companies are satisfactory, with Tata Steel more consistent in its performance than that of SAIL.

LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

The study is based on secondary data i.e., published annual reports of the selected companies. Furthermore, the present study suffers from the limitations like small sample size and shorter study period.

In spite of these limitations, further studies may be undertaken to conform the findings by including more sample companies and longer time period.

REFERENCES

1. Banerjee, B. (2008): *"Financial Policy and Management Accounting"*, Seventh Edition, Prentice - Hall of India Limited, New Delhi.
2. Singh, P. (2008): *"Dividend Payout Trends in Post - Liberalization Era: A Case Study of Indian Farmers Fertilizers Cooperative Ltd."*, The Management Accountant, I.C.W.A.I., October Issue.
3. Published Annual Reports of Steel Authority of India Limited from 2003-2004 to 2007-2008.
4. Published Annual Reports of Tata Steel Limited from 2003-2004 to 2007-2008.
5. www.tatasteel.com
6. www.sail.com
7. Das, N.G. (1990): *"Statistical Methods (II)"*, M. Das & Co., Calcutta
8. MS-08 (2002): *"Quantitative Analysis for Managerial Applications"*, IGNOU, School of Management Studies, Block-5.
9. Dhemeja, N. L., (1976): *"Corporate Dividend Behaviour with Special Emphasis on Growth and Controlled Companies"*, Unpublished Doctoral Dissertation, IIM, Ahmedabad, India.
10. Walter, J. E., (1963): *"Dividend Policy - Its Influence on the Value of the Enterprise"*, The Journal of Finance, May.
11. Miller, M. H. & Modigliani, F., (1961): *"Dividend Policy, Growth and Valuation of Shares"*, The Journal of Business, XXIV.
12. Gordon, M. J., (1962): *"Optimal Investments and Financing Policy"*, Review of Economics and Statistics.
13. Aharony, J. & Swary, I., (1980): *"Quarterly Dividend and Earnings Announcements and Stockholders' Returns - An Empirical Analysis"*, Journal of Finance.
14. Bhat, R. & Pandey, I. M., (1994): *"Dividend Decision: A Study of Managers' Perceptions"*, Decision, 21 (1 & 2).
15. Fudenberg, D. and Tirole, J. (1995): *"Game Theory"*, Massachusetts Institute of Technology.
- De Angelo, H., (1991): *"Payout Policy and Tax Deferral"*, The Journal of Finance, LXVI, (1), March.
16. Gugler, K., (2003): *"Corporate governance, dividend payout policy, and the interrelation between dividends, R&D, and capital investment"*, Journal of Banking and Finance, 27.
17. Jahur, M. S. and Naznee, S., (2005): *"Determinants of Dividend Policy – An Empirical Study of Some Selected Corporate Sector in Bangladesh"*, The Cost and Management, 33(6).
18. Gupta, A., (1999): *"Dividend Policy in MNC-owned Indian Subsidiaries (A Post-1994 Study with Reference to Selected Companies)"*, Indian Accounting Review, 3 (1).
- Lintner, J., (1956): *"Distribution of Incomes of Corporations"*, American Economic Review, 46.

TRIPLE BOTTOMLINE REPORTING: LET'S GIVE A PUSH

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** Dr. Yagnesh Dalvadi

ABSTRACT

Sustainability and its organizational cousin Triple Bottom line, popularly known as TBL is a buzz word, nowadays. It is an accounting framework that incorporates three dimensions of performance: Social, Environmental and Financial.

As per financial management, every business would aim at- (1) Profit Maximization and (2) Wealth Maximization, which has been universally accepted. What about the social objectives and environmental issues? A million dollar question. We are a part of the society and we need to contribute something to the society. Also, the recent issues of Global Warming are mainly due to the imbalance in the environment.

Companies can contribute a much in this regard by adopting the "Triple Bottom line Reporting" which covers economic (financial), social and environmental aspects in the form of reporting, as in the long run it is not only profit or wealth maximization but healthy environment which would allow a healthy business.

Companies across the globe have made a rapid move towards TBL. Majority of them have formulated separate accounting standards pertaining to TBL reporting practices. Here, an attempt has been made to highlight the concepts related with triple bottom line reporting, how it can be measured, TBL in other developed countries, Indian Scenario and suggestions to make TBL more popular in India.

Key Words: Corporate Reporting, Sustainability, Triple Bottom Line

INTRODUCTION

The term "triple bottom line" (TBL) was first coined by author John Elkington in 1994 and further defined and expanded in his book *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. According to Elkington, this means that businesses are becoming more sustainable, which means their bottom line objectives have expanded to include 3 Ps viz., People, Planet and Profit:

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People or Human Capital :

This refers to fair, ethical, and beneficial business practices toward employees, community, and country in which a corporation conducts its business.

Planet or Natural Capital :

The goal of 21st century companies is to not only help protect the environment by producing Green or environmentally responsible products but also to have their own sustainable, environmentally sound business operating practices. This means companies are to operate in an environmentally responsible manner, taking steps to reduce their own environmental footprint, consuming less energy and fewer nonrenewable resources and producing less waste.

Profit:

Yes, companies are still in the business of making profits; however, within a sustainability framework, profit is viewed as the economic benefit enjoyed not just by the company but by the employees and community as a whole.

NEW FOCUS OF BUSINESS

Now the companies apart from its traditional objective i.e., **profit** making need to move and focus on the new objectives i.e., people and planet.

Again, **people** here covers not only the employees of the company but the society as a whole which is directly or indirectly associated with the company.

While, **planet** here means Environmental Protection and Preservation. The companies should try to conserve and preserve the environment for the generations to come by means of limiting pollution to the extent possible or minimizing the emissions of hazardous gases which would definitely contribute to the healthy world.

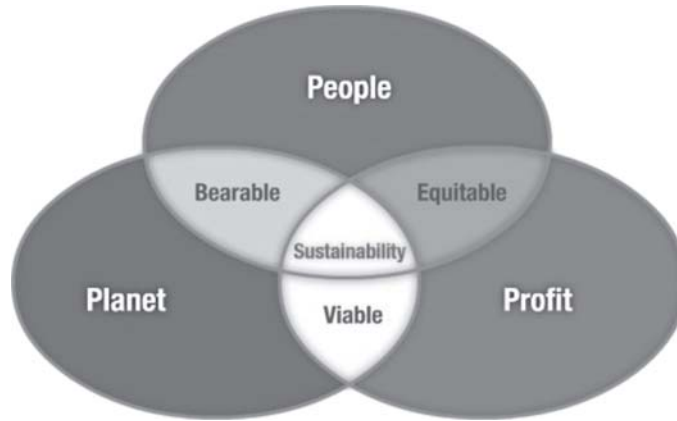
One of the most useful reviews of business progress to date in dealing with a range of “*triple bottom line*”, issues is Business as Partners in Development, a report by **Jane Nelson** of the Prince of Wales Business Leaders Forum (Nelson, 1996). She concludes that:

We know what the economic, environmental and social problems are. The need now is to focus on solutions. At one level the solutions are technology, finance and institutions. Ultimately, however, these are just the ‘mechanics’. The core issue is about changing attitudes, values and approach. It is about thinking and acting in non-traditional ways .It is about new way of governance- at both societal and corporate level.

This however does not to imply that the managers of corporations in past decades were concerned only about profits. Nor does it mean that the companies intentionally acted unethically to detriment their workers, their communities, or the environment.

But, it should broaden its horizons and concern for the society and the world, as a whole rather than being centric to only (the company) itself.

Figure I : 3 Ps of Accounting



Source: <http://blog.gohuman.com/index.php/vision/triple-bottom-line-for-small-local-businesses-you-can-make-it-work/>

A sustainable business, in other words, involves the integration of social equity (people), environmental responsibility (planet), along with economic growth (profits). In practical this terms means manufacturers, distributors, and facility service providers must ensure that the manufacture, selection and use of products are done in a way that are sustainable and simultaneously address all the three components of the triple bottom line.

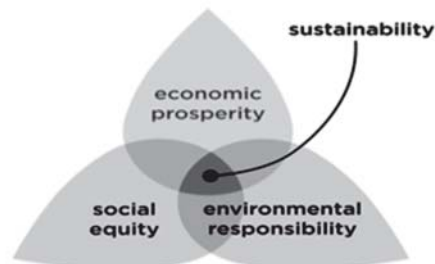
THE TRIPLE BOTTOM LINE DEFINED

The TBL is an accounting framework that incorporates three dimensions of performance: social, environmental and financial. This differs from traditional reporting frameworks as it includes ecological (or environmental) and social measures that can be difficult to assign appropriate means of measurement. The TBL dimensions are also commonly called the three Ps: people, planet and profits, which are now popularly referred to as the 3Ps.

Figure II : Triple Bottom Line Model

The Triple Bottom Line

Our model for sustainability is built around people, planet and prosperity. We don't believe one can succeed without sustaining the health of the other two.



(Source: <http://multivu.prnewswire.com/mnr/drugstore/41219/>)

Well before Elkington introduced the sustainability concept as “triple bottom line,” environmentalists wrestled with measures of, and frameworks for, sustainability. Academic disciplines organized around sustainability have multiplied over the last 30 years. People inside and outside academia who have studied and practiced sustainability would agree with the general definition of Andrew Savitz for TBL. The TBL “captures the essence of sustainability by measuring the impact of an organization’s activities on the world ... including both its profitability and shareholder values and its social, human and environmental capital.”

LITERATURE REVIEW

TBL may be an emerging concept for the Indian corporate, but it was coined way back. Discussion of the quantification of social and environmental performance is not entirely new and predates Elkington’s (1997) book. In 1972, David Rockefeller said that he ‘can foresee the day when, in addition to the annual financial statements certified by independent accountants, corporations may be required to publish a social audit similarly certified’ (cited in Gray, Owen, et al, 1987, pix).

In 1992, the European Union Fifth Action Programme called for a redefinition of accounting concepts and methods to account for inclusion into product market prices (EU, 1992). In 1977, the American Institute of Certified Public Accountants published a book entitled *The Measurement of Corporate and Social Performance* (AICPA, 1977).

Elkington’s book reinforced the view that corporations were accountable for their impact on sustainability through TBL and that accountants had a substantial role in measuring, auditing, reporting, risk rating and benchmarking it (Elkington, 1997).

Under the leadership of Swiss business entrepreneur Stephan Schmidheiny, a coalition of around 50 international companies formed the Business Council for Sustainable Development (Timberlake, 2006). The BCSD prepared a “Declaration of the Business Council on Sustainable Development” and a book, *Changing Course* (Schmidheiny, 1992). “Gathering the expertise of more than 50 leaders of multinational corporations and backed by an array of case studies showing existing best practices”, the book claimed to provide “an extensive analysis of how the business community can adapt and contribute to the crucial goal of sustainable development - which combines the objectives of environmental protection and economic growth.” After UNCED, the ICC formed the World Industry Council on the Environment, which merged with BCSD on 1 January 1995 to form the World Business Council on Sustainable Development (WBCSD).

This triple bottom line conception of corporate sustainability is now widely used among business practitioners. For example, the WBCSD claims to bring together its 180 member international companies “in a shared commitment to sustainable development through economic growth, ecological balance and social progress.” This is made more significant by the fact that, in 2006, the WBCSD was rated by sustainability experts worldwide as the business organisation most likely to play a “major role” in advancing sustainable development over the next five years (Globescan, 2006).

Another example of the triple bottom line’s growing acceptance is its use in the Global Reporting Initiative’s (GRI) Sustainability Reporting Guidelines, which has a vision that one day “reporting on economic, environmental, and social performance by all organizations is as routine and comparable as financial reporting.” As at 1 September 2006, nearly 1,000 organizations in over 60 countries had used the GRI Framework as the basis for their reporting.

TRIPLE BOTTOM LINE REPORTING VARIABLES/ MEASURES

The TRIPLE BOTTOM LINE can be measured through the following variables:

Economic Measures

Economic variables ought to be variables that deal with the bottom line and the flow of money. It could look at income or expenditures, taxes, business climate factors, employment, and business diversity factors. Specific examples include:

- Personal income
- Cost of underemployment
- Establishment churn
- Establishment sizes
- Job growth
- Employment distribution by sector
- Percentage of firms in each sector
- Revenue by sector contributing to gross state product

ENVIRONMENTAL MEASURES

Environmental variables should represent measurements of natural resources and reflect potential influences to its viability. It could incorporate air and water quality, energy consumption, natural resources, solid and toxic waste, and land use/land cover. Ideally, having long-range trends available for each of the environmental variables would help organizations identify the impacts a project or policy would have on the area. Specific examples include:

- Sulfur dioxide concentration
- Concentration of nitrogen oxides
- Selected priority pollutants
- Excessive nutrients
- Electricity consumption
- Fossil fuel consumption
- Solid waste management
- Hazardous waste management
- Change in land use/land cover

SOCIAL MEASURES

Social variables refer to social dimensions of a community or region and could include measurements of education, equity and access to social resources, health and well-being, quality of life, and social capital. The examples listed below are a small snippet of potential variables:

- Unemployment rate
- Female labor force participation rate
- Median household income
- Relative poverty
- Percentage of population with a post-secondary degree or certificate
- Average commute time
- Violent crimes per capita
- Health-adjusted life expectancy

Data for many of these measures are collected at the state and national levels, but are also available at the local or community level. Many are appropriate for a community to use when constructing a TBL. However, as the geographic scope and the nature of the project narrow, the set of appropriate measures can change.

However, as such there have been no accurate measures of these variables as it changes from company to company and country to country. These serves as basic variables which tries to throw a light on how triple bottom line can be measured.

TRIPLE BOTTOM LINE IN THE FORM OF REPORTING AND ITS UTILITY

In recent years a deal of attention has been directed to “triple-bottom-line reporting”, defined by Elkington (1997) as reporting that provides information about the economic, environmental and social performance of an entity. The notion of reporting against these three components (or “bottom lines”) is directly tied to the concept and goal of sustainable development. Triple bottom line reporting, if properly implemented, will provide information to enable others to assess the sustainability of an organization’s or community’s operations. The perspective taken is that for an organization or a community to be sustainable it must be financially secure, as evidenced through such measures as profitability; it must minimize, or ideally eliminate, its negative environmental impacts; and it must act in conformity with societal expectations. These three factors are obviously highly inter-related.

The practice of social reporting was widely promoted in the 1970s but lost prominence in the 1980s. In the early 1990s attention was devoted to environmental reporting from an eco-efficiency perspective. Social reporting did not reappear until the mid-to-late 1990s. It is likely that in the new millennium social reporting will be increasingly embraced by corporations, just as the environment became a key reporting issue in the 1990s.

TRIPLE BOTTOM LINE REPORTING IN DEVELOPED COUNTRIES- A GLIMPSE

There has been a rapid increase in practicing Triple Bottom Line Reporting since 1993. However, Western Countries have shown a remarkable growth in practicing TBL and presenting it through various means. A comparison between Western countries and Asia show that, Japan is the only country in Asia, which has published sustainability (TBL) reports at a significant level. Several companies in Belgium, Canada, Denmark, France, Germany, the Netherlands, Portugal, the UK, the USA, Norway, and Sweden publish these on a regular basis. These 11 countries have featured consistently in the Corporate Responsibility Reporting surveys conducted since 1993.

In addition, companies in Finland, Italy, Spain, Australia and South Africa were also found to report on their business sustainability initiatives during the timeframe, though not in a consistent manner.

INDIAN SCENARIO

In India, so far triple bottom line reporting is a new bud which is still to grow. Many companies on its own have started practicing it but in its own unique way. India requires adopting this practice at the earliest and frame an accounting standard for its implementation. Environmental and Social Issues to a great extent can be solved out through its proper reporting. Number of subsidiaries of multinationals and local companies, for example in the steel, automotive, pharmaceutical, food

processing, entertainment industries, etc. are publishing these reports mostly based on the GRI guidelines.

SUGGESTIONS TO POPULARIZE TBL PRACTICE IN INDIA

1. Government should make it compulsory at least for the limited companies to prepare all the reports i.e., Environmental, Social apart from its traditional Financial Reports.

Although, it would be suggested to prepare and present it as a separate report each, but if not, than at least the companies should include it as a part of its annual reports.

2. In order to popularize TBL reporting practice, the government or say the ASB (Accounting Standard Board) should frame a separate Indian Accounting Standard pertaining to the method of reporting each bottom line and the minimum content of the report so as it can be well presented, easily understood and justifiably measured.
3. A Standard format of TBL reporting should be arrived at which serves as a base and means of guidance for the companies who intend to follow it.
4. The government should also award or rate the best TBL reporting practices to the companies, which in turn, would motivate the companies for a better performance in each domain i.e., Financial, Environmental and Social individually and as a whole.
5. The universities and colleges should incorporate TBL in the course curriculum as an emerging area of accounting which would give a base to the future business executives or say accounting professionals.
6. Companies as a corporate citizen of the country should contribute a healthy society and a healthy environment. This contribution however, may vary from company to company but would ultimately contribute to the country as a whole and this can be achieved by proper TBL reporting practice which shows the company's contribution to the society and environment.

REFERENCES

1. Adrian Henriques & Julie Richardson (2004), "*A Book on- The Triple Bottom Line: Does it all add up?*", Earthscan Publications Ltd., UK, pp. 17-25.
2. Craig Deegan (Spring 2000), "*The Triple Bottom Line*", JASSA , Issue 3, pp. 12-14.
3. John Elkington(1994), "*Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development*," California Management Review 36, No. 2: pp. 90-100.
4. Kolk A. (2004), "*A Decade of Sustainability Reporting: Developments and Significance*", International Journal of Environment and Sustainable Development, Vol.3, No. 1, pp. 51-64.
5. Stephen Ashkin and Cynthia Schultz (2009), "*The Triple Bottom Line- The rise of the Sustainability Concept*", ISSA Today, pp. 1-7.
6. Sumati Reddy (July 2007), "*Sustainability Reporting in Asia*", the ICAI Journal of Accounting Research, Vol. VI., No. 3, pp. 39-52.
7. The Earthscan Reader in Business and Sustainable Development : Edited By Richard Starkey and Richard Welford, Earthscan Publications Ltd., London and Sterling, VA., p-37.
8. Wayne Visser (2007), "*Corporate Sustainability and the Individual: A Literature Review*", University of Cambridge Programme for Industry Research Paper Series: No. 1, pp. 3 – 20.

VOLUME REACTIONS TO QUARTERLY EARNINGS ANNOUNCEMENTS – A STUDY ON BSE 500 GROUP OF COMPANIES

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ABSTRACT

The release of information has an impact on volumes of stocks in the market. The release of information process leads toward a new equilibrium in the market. This leads to a shift in volume as the release of information causes the old equilibrium level to shift to a new equilibrium as it tries to adjust to the new information. It occurs when the price shift is minimal after information release then the volume shift may occur without any significant price change. Thus the paper studies the effects of volume effect in the lime light of the after math of the information release in the market.

INTRODUCTION

This study investigates information processing in the Indian stock market using quarterly financial statement release. The disclosure norm of the BSE is separate and acts as a standard in publication of quarterly information. The use of standard accounting policies makes a uniform platform that helps establish a relationship between the information content of the earnings announcement and the volume reaction to the same. The 'Interim Financial Results' became mandatory in India after March, 1998. In India the data source is mainly through the unaudited but limited review by the auditors is also another unique point for India as it legitimizes the claim of the statements to a certain extent.

When the release of information takes place prices change as processing of new information is done by the market. This process leads towards a new equilibrium in the market. This study is based on database build up from the information content in the quarterly reports as per clause 41 of the listing agreement. The BSE 500 has been chosen as it provides a sizeable database for the research work.

LITERATURE REVIEW

Beaver (1968) examines the volume effects. The evidence points to an increase in trading volume along with abnormal activity during the announcement week. The earnings report conveys the change as largest for volume tests for week '0' in the reporting period in comparison to the non – report period. The behaviour of volume change supports the theory of information content in an earnings announcement.

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Cready & Mynatt (1991) examines the security market response around annual report release date. The price response measurement is done by using absolute value and squared unexpected returns. The unexpected volume and number of transactions came from regression equations. The results show absence of a price response and a much lower response to volume of shares on annual report dates.

Bamber and Cheon (1995) study the frequency of earnings announcements generating differential volume and price reactions and check for association with the characteristic of the announcements. The results depict a positive relationship between price and volume reactions. The trading volume is also highly relative to price reaction when the earnings announcement is able to generate a differential belief revision within traders when the accompanying aggregate market belief revision is small.

Cheung and Sami (2000) study whether the Hong Kong market reacts to annual earnings information releases. A noticeable volume reaction occurs from four days before announcement to two days after announcement.

Ali, Klasa and Li (2004) study limitations of prior studies by using a new measure of differential precision of pre-disclosure information. The researchers examine whether the multiplicative specification of the trading volume model explains the data in comparison to the prior empirical studies on this issue. The results show that trading volume relates to percentage ownership by institutional investors with medium stakes and is not in relationship with institutional investors with low and high stakes.

Dellavigna and Pollet (2005) analyze the differences in response to announcements on Friday and other weekends. The abnormal trading volume is lower for Friday announcements. The findings suggest temporary distraction on weekend announcements. This supports post earnings announcement drift due to limited attention.

Chae (2005) studies trading volume prior to important corporate announcements. The analysis provides how liquidity traders and market makers respond to asymmetric information. The cumulative trading volume decreases before scheduled earnings announcements and increases before unscheduled announcements. The liquidity traders do not read information in prices and volume before unscheduled announcements.

Frazzini and Lamont (2006) study the connection between volume and prices from scheduled quarterly earnings announcements by firms. The stocks rise on high volume and decline on low volume. The results show that volatility around earnings announcements deters traders who are unable to diversify. The evidence also suggests that arbitrageurs trading to eliminate the premium have not been able to completely do away with the same.

DATA, SAMPLING & METHODOLOGY

The collection of data is a very crucial phase and forms the basis of research work. Data comes from primary and secondary sources. When a researcher carries out actual field work and enquiries to collect data then the data originates from the primary source. It's also known as the original data. Again when a researcher uses data that is already available, the data collection process having being done by any entity other than the researcher it becomes a secondary source of data. Researchers may use data from either the primary source or the secondary source or at the time of conducting the research. In the current research work the data originating from the secondary source has been put to use in building the database for the research work.

The main data sources are the BSE website featuring the BSE – 500 and the CMIE (Centre for Monitoring Indian Economy). The BSE index has been the source of selection of names of companies for use in the database. CMIE remains the mainstay for contribution to the quarterly and annual financial announcements along with other respective details such as financial ratios, EPS, auditor's names, date of publication of report among others which has been of immense help in building up of the data base.

The initial sample list contains 159 companies. The strata consist of the BSE-Sensex, BSE 100 sans the one's already in BSE -Sensex, BSE 200 sans the ones' in BSE 100 and BSE-Sensex with the final list of firms which are in SBE 500 but not in the BSE-Sensex, BSE 100 & BSE 200. In this way each strata have been independent of each other which makes the availability of maximum elements from each group. The list consists of 8 from the BSE-Sensex, 18 from the BSE 100, 41 from the BSE 200 and the rest 92 belongs to companies that are part of the BSE 500 but not the above three groups. The application of the formula limits acceptance of the sample to a 97.5% confidence limit with a 2.5% margin of error which is statistically acceptable. Sampling of this type allows deeper penetration and makes a better representation of the stocks composing the indexes as such rather than making a random sampling from the BSE – 500 groups itself.

For the first list of 8 companies,

$$n_1 = \frac{N^2 P (1 - P)}{d^2 (N - 1) + N^2 P (1 - P)} \quad \text{--- (5)}$$

n_1 = required sample size.

= 5.024. (value at 97.5% with 1 degree of freedom)

$N = 8.$

$P = 0.50$ (for maximum coverage).

$d = 0.025$ (margin of error of 2.5%).

$$n = \frac{(5.024)^2 (8) (0.50) (1-0.50)}{(0.025)^2 (8-1) + (5.024)^2 (0.50) (1-0.50)}$$

or, $n = 8$ (rounded off to zero decimals).

This ensures the maximum representation from the BSE-Sensex group of companies which after fulfilling all the preset conditions have made it to the final list.

The use of the above process continues for the next 3 strata. The second list comes from the BSE – 100 i.e. and has 18 companies to choose from and has all the 18 elements. This ensures the maximum representation from the BSE 100 group which has made it to this list after fulfilling all the preset conditions. The third list likely comes up with another group from BSE – 200 with only 41 companies from which 40 make it to the final list. This completes the list from the BSE 200 group of companies after undergoing the respective filters in place. The fourth and final list comes up with the last left over group from BSE – 500 with only 92 companies from which 88 make it to the final list. This completes the complete sample list from for the paper from all the four strata after fulfilling all the preset filters.

The final sample size comes by adding the respective sample size of each stratum. The samples eligible for selection number 8, 18, 41 and 92 for each strata giving and provides final sample

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values of 8, 18, 40 and 88 which add up to 154. The efficiency of the above method of stratification is clear once one repeats the same process for the complete list of 159 companies, at 97.5% confidence level with a 2.5% margin of error. The sample list for simple random sampling from the sample set is 147 companies.

This value is lower in count by 7 and is devoid of any details regarding the composition of the sample elements from each stratum forming the full sample. This thus proves to be an inferior method of sampling in comparison to the one that has been chosen above. The strength of the method and the adequacy of the sample size is available from the following test where upon the size also exceeds the size selection exceeds the random sampling size given a population size of 159 companies at 99% confidence level with a margin of error of 0.5% , the given sample size being 151. The sample size under question exceeds the same by a head count of 3. These tests thus prove without any question the stability and effect ability.

The choice of samples is made by arranging the companies in sequential no. in alphabetical order starting from 1 and ending on the final no. allowable in the list. In the case of the first list, the no. would be from 001 to 008. As the full list come without as into consideration the random numbers do not have any use here. In the case of the second group, from the BSE – 100, with an available 18 companies the no. spreads from 009 to 026 to avoid repetition. The random no. table does not find use once again as the full list comes into consideration. Then for the third list, from the BSE 200 group with 41 companies, the no. starts from 027 to 067 and the random no. list comes into play for the first time.

The job is how ever to find only one out of the list. The random no. table is put to use to follow the policy of exclusion by choosing the one out of the list rather than choose 40 out of 41 firms. The last list is the leftover of the BSE – 500 groups of 92 odd companies, the no. are from 068 to 159 and the objective is to choose 88 companies from 92 companies, the random no. list is looked up for the last 3 digits for 068 to 159 for finding 4 nos. for exclusion from the list to make up the final list and it's sensible to choose 4 out of 92 rather than 88 out of 92.

The process works by exclusion principle as it's better to choose a few off the list than make a behemoth effort of choosing from the list to include the samples in the final list. Also in case once a company is chosen from or there is a rejection of the list it cannot be a contender elsewhere i.e. an entity in a list has zero probability of being chosen once the sample requirement from the list has been met up with. The period under consideration starts from the 1st April, 2009 to 31st March, 2010. This period consists of 616 quarterly announcements. The method followed is that of Ammann & Kessler (2004).

Normality & Z Tests

The paper needs certain tests to prove the representative capacity of the 154 sample companies with respect to the total master population of 500 companies. A test of normality of data is also done. The concerned tests are the Z- test and the Lilliefors Test. The tests have been described in brief:

❖ Lilliefors Test

The normality assumption is a major standard statistical procedure and the most well-known test is

a modification of the Kolomogorov-Smirnov test of goodness of fit, or the Lilliefors test for normality. This test was developed independently by Lilliefors (1967) and by Van Soest (1967). The null hypothesis states that there is no difference between the distribution under observation and a normal distribution. The alternative hypothesis is that the error is not normally distributed. The uniqueness of Lilliefors' test is in the criterion using an approximation of the sampling distribution by using the Monte-Carlo technique.

The procedure consists of extracting a large number of samples from a Normal Population and computes the value of the criterion for each of these samples. The distribution of the values of the criterion gives an approximation of the sampling distribution. There are some small problems with the current tables for the Lilliefors test. The first arises from the rather small number of samples used in the original simulations. The second problem comes from the limited number of critical values reported in the original papers. Lilliefors, for example, reports the critical values for $\alpha = [;20; ;15; ;10; ;05; ;01]$. These values correspond to most tests involving only one null hypothesis. The Lilliefors test transforms data into z scores:

$$Z = \frac{X - \bar{X}}{\sigma}, \text{ where } \text{---} (1)$$

X = The sample unit.

\bar{X} = The Mean, and

Σ = The SD.

The Z score calculation is done by calculating the mean, subtracting the mean from every sample unit and then calculating the variance of every sample unit and then the sum of variances and their mean is taken, then the square root of the variance provides the SD. Then the sample mean is subtracted from the sample unit and divided by the SD to get the individual Z score.

Then, the cumulative frequency distribution of the data is compared to the cumulative frequency distribution that would be expected based on the z values. The scores are arranged from the lowest to highest and then the CFD (cumulative frequency distribution) of scores (expressed as proportions—with 10 scores, each score is one tenth of the total or 0.1). If there are two people with scores of 3, they both share the same location on the cumulative distribution i.e. 0.3. The method involves looking at the discrepancy between the cumulative frequency distribution for the raw and z scores.

The need is to compute the sample mean and standard deviation for the raw data. Then the standard normal curve table identifies the proportion of the area that is to the left of the particular z score. If the Z score is negative then the value is subtracted from 0.5 and when Z score is positive the same is added to 0.5 and identified as “area below z”. Then the same is subtracted from the CDF value and the absolute score taken. When the test statistic is smaller than the critical value, the assumption of a normal distribution continues to be tenable.

In case of volume, the volume traded on 18th of January 2010 has been taken. The test table provides positive figures for α risk values in the above mentioned range for sample range 4 to 50. The positive value of the chart is the main reason for the absolute value in the final difference column. The price and volume tests for normality are done only on the sample 154 units.

In all the cases the group size have been varied to chech the effect of change in group size on the normality factor. The volume test also passes the normality test. The table of α value limits

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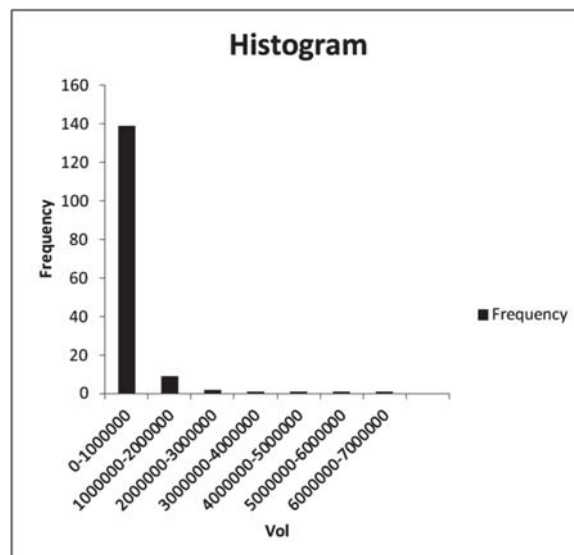
the sample size in groups from 4 to 50. The test is done in batches of 13, 37, 10, 30, 15, 34, 10 and 5. No such relation has been found. As before the groups confirm to various α risk values. In this case however all 154 samples undergo the test. The 1st batch does so at 0.01, the next at 0.20, the following at 0.20, the next at 0.15, the next at 0.20, the following at 0.10, the next at 0.05 and the last batch at 0.05.

In the case of volume all the values have been taken as there is no such super large value and that the grouping process is not hampered by the presence of any out of the way value. Then all the values are arranged and sorted into various groups with continuous class range of 10,00,000 and all the 154 values fill up the table in order to form the histogram test which provides another proof of normality. The histogram test also proves the normality of the volume data that have been put to the test.

Table 1.1

Class Range	F
0 – 1000000	139
1000000 – 2000000	9
2000000 – 3000000	2
3000000 – 4000000	1
4000000 – 5000000	1
5000000 – 6000000	1
6000000 – 7000000	1

Graph 1.1

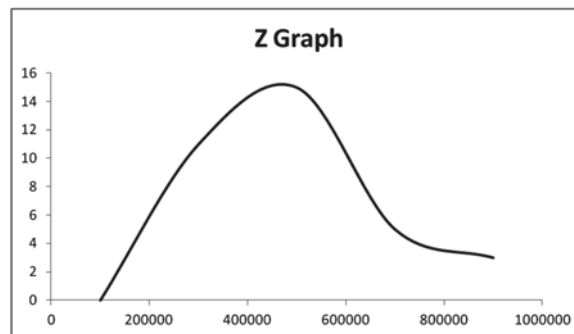


An example from the volume batche with 34 samples shows the smooth bell shaped curve.

Table 1.2

Class Range	Mid Value	Frequency
0 – 200000	100000	0
200000 – 400000	300000	11
400000 – 600000	500000	15
600000 – 800000	700000	5
800000 – 1000000	900000	3

Graph 1.2



❖ Z Test

The Z-test compares sample and population means to determine the presence of any significant difference. It requires simple random sample from population with Normal distribution and a known mean which is why the normality test is done first. The z value indicates the number of standard deviation units of the sample from the population mean. The z-test is not the same as the z-score. A Z test is statistical test that determines whether two population means are different when the variances are known and the sample size is large. The test statistic must have a normal distribution and parameters such as standard deviation must be known in order to perform an accurate z-test. A one-sample location test, two-sample location test, paired difference test and maximum likelihood estimate are examples of z-tests. Z-tests closely resemble related t-tests are best for much higher sample size. In t-tests the standard deviation is unknown whereas in z-tests it is known.

The main purpose of the test is thus to establish the authenticity of the sample from the population. In this case the test has been done on volume. The sample and population for price comes from 18th January 2010 opening prices for BSE-500 and the 154 sample companies. The volume data consists of the volume of share traded on 18th of January 2010 for BSE-500. The volumes are added up and the mean is found out. Then the mean of the total is subtracted from each individual sample and squared to find the variation and then the individual square root of the same is found out, added up and the mean calculated.

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The calculation for the volumes is done by the proportion formula. The formula in use is as below:

$$Z = \frac{P - E(p)}{SE} \text{ ----- (2)}$$

$$SE = \sqrt{\frac{PQ}{n}} \sqrt{\frac{N - n}{N - 1}} \text{ --- (3)}$$

where, P = Proportion of sample volume,
Q = Proportion of population volume,
E(P) = Expected Proportion of sample volume,
N = Population Size,
n = Sample Size,
SE = Standard Error.

The standard error is calculated by using the population and sample proportion. This is done by adding up the BSE-500 and 154 sample company volumes taking the mean and adding the mean and then dividing the individual population and sample mean by the sum total of the means to find out the proportions P and Q. The same process is done by the sample and population sizes to find out the expected proportion in the same manner. Then the Z value is calculated by multiplying P and Q and dividing the same by the sample size and taking the square root of the same and multiplying the same by the square root of difference of sample sizes divided by population size less 1. The standard error is calculated by using the population SD and the population and sample size. The SD calculation is done by subtracting the mean of the total volume range from each individual sample unit, squared and the individual square root taken. The sum is the obtained by adding up the individual values and the mean obtained. This mean SD is put to use later on in the formula. The Z value is found out by subtracting the expected proportion E(P) from P and dividing the same by SE. The |Z| value of 6.52 confirms more than 99% confidence limit. Then the confidence interval test is done in the following way:

$$X \pm \sigma \text{ for 95\% confidence limit ----- (4)}$$

The sample mean is 4,22,936 and SD 1,43,881 which gives an interval from 5,66,818 to 2,79,055. The population mean of 4,28,972 falls within the limit and hence can be said to suffice the 95% significance limit test.

METHODOLOGY

The objective of the study is to investigate the effects on processing of information in the earnings announcement on the BSE stock exchange. This paper investigates whether there are abnormal effect in volume and price before and after the information event which in this case is the announcement of the quarterly returns. This study uses all the 4 Quarters for the financial year 2009 – 2010 (April'09 – March'10) i.e. June, 2009, September, 2009, December, 2009 and March, 2010 quarter for this purpose. The announcement time is given by the notation ‘’, with data from the CMIE Prowess and BSE database. The determination of the event window is of utmost importance here, which ranges from a certain number of days before the event (pre-event window) to a certain

number of days after the event (post event window) which in this case has been taken as 7 days (both pre and post announcement). The event day belongs to none of the windows.

This activity does away with the famed 'Friday Earnings Announcements Effects' among others and also gives time for the market to access the information. The pre event estimation window starts eight days before the event window and ends one day prior to the event window; it also ends and starts eight days from and one day after the post event window. Here T_{-7} denotes the first day of the pre-event period. The input parameters for determining the speed of information processing comes from data within the estimation window. This paper focuses on the pre-event to the post-event window which is $(T_{-7} - T_{+7})$ days long to evaluate the speed of information processing and compare the behaviour of stock returns and volume both before and after the event. The trade volume also varies in anticipation of an event regardless of the news content and the way of treatment of good and bad news. As above there is no differentiation between good and bad news, the effect on volume is supposedly similar but only in opposite directions. The volume hypothesis thus goes as:

Hypothesis 1 (Null Hypothesis): That there exists no difference in trading volume from before than after the announcement of the quarterly announcement news.

Hypothesis 2: That there exists a difference in trading volume from before the event than after the announcement of the quarterly announcement news.

For volume, two types of tests are done with the initial approach being a t-test which tests for a significant deviation of cumulative volume from the mean of the 30 day estimation window. The sign μ_{e1} , μ'_{e1} & μ''_e denotes the mean volume of the 30 day estimation period, the 7 day pre and post announcement event window period. The data in this case is the daily volume transaction for the respective periods. The variance of daily volume has been taken for the post event window period only as the measurement perspective here is from post event window only. The calculation for the mean volume of the estimation period is done first. This purpose requires the separate treatment of the individual quarters as before. As before the 4th quarter is taken first. The estimation period stretches for 30 trading days a month before the end of the respective quarter. In this case it stretches from 15th of January, 2010 to 26th of February, 2010. First, all the 154 sample companies are arranged in alphabetical order. The next column follows the last date of the respective quarter, in this case 31st March, 2010. Then the daily volume transaction for each of the 154 companies for the 30 trading day period is taken into account. The daily trading volumes of each company lies in a single row which is then summed up and the mean of the same found out by dividing the same by 30. This gives the mean volume trading for the entire period of 30 days. The formula treats the same as μ_{e1} .

The process undergoes repetition for all the other 3 quarters. The repetition of the same is done for the 3rd quarter from 17th of October, 2009 to 30th of November, 2009. The 2nd quarter starts from 21st July, 2009 and ends on 31st August, 2009. The 1st quarter runs from 16th April, 2009 to 29th May, 2009. In order to maintain parity the same date range has been taken which means that in certain cases the last day of the month is missing due to market closure or other reasons, so the previous day have been taken as the last day. This is also the reason why 30 trading days are not equal to a month, as trading does not take place in all the 30 days of the month, so in most cases half of the previous month have been taken to complete the 30 trading days. The 4th quarter is again taken to task first of

all for this purpose. First, all the 154 sample companies are arranged in alphabetical order. The next column follows the last date of the respective quarter, in this case 31st Marc, 2010. The next column contains the date of declaration of the results of the particular firm for the respective quarter. Then the daily volume transactions for each of the pre and post event window period for each company are taken, the time horizon being 7 days as usual. The date excludes the announcement date but stretches to 7 days both before and after the date of the announcement.

The calculation for the mean volume of the test period comes next. This purpose treats the individual quarters separately as before. As before the 4th quarter is taken first. The test period stretches for 7 trading days during the pre and post event window period which excludes the announcement date. First, all the 154 sample companies are arranged in alphabetical order. The next column follows the last date of the respective quarter, in this case 31st Marc, 2010. Then the next column contains the announcement date. Then the daily volume transaction for each of the 154 companies for the 7 trading days in the pre and post event window is taken into account. The daily trading volumes of each company lies in a single row which is then summed up and the mean of the same found out by dividing the same by 7. This gives the mean volume trading for the entire pre and post event window of 7 days. The formula treats the pre event window mean as μ'_{e1} and the post event period window as μ''_e . The next step follows a complex calculation process to calculation variation σ'_{e12} . This is done for the estimation period only. In this paper an assumption has been made about the non correlation of volume of the estimation period and pre and post event window events which leads to the volume variance of the estimation period being taken into consideration only. Also the period of observance being in respect of the estimation period the variance of the same has only been taken.

The variation is calculated by subtracting the mean volume from the daily volume and squaring the same. The squared factors are then added up for each of the 30 days and the sum total divided by 30 to obtain the mean variance for each element in sample. The same calculation is done for all the other companies for the quarter. The process undergoes repetition for all the other 3 quarters of the year.

The value in expectation and variance of cumulative volume (CV) in the pre event period are as follows:

$$E(CV_{i,pre}) = (\tau - T_{-7}) \mu'_{e1} \text{ --- (6), from the 7 day pre event window.}$$

$$\text{and var } (CV_i) = 1/N \sum_{t=1}^{30} \mu'_{e1} \text{ --- (7)}$$

$$\text{Now as } \overline{(CV_i)} = 1/N \sum_{t=1}^{30} V_{i,t} = \mu_{e1}, \text{ for the 30 day estimation period.}$$

The test statistic for the pre event volume effect becomes:

$$\Theta_i = \frac{\sum_{t=1}^N (\overline{CV_i}) - \sum_{t=1}^N E(\overline{CV_i})_{pre}}{\sqrt{\sum_{t=1}^N \text{var}(CV_i)}} \text{ --- (8)}$$

The value of \hat{E}_1 calculation is done for the 4th quarter first. In order to prevent any clash of positive and negative values as before only the absolute values have been taken into consideration. The daily mean volume values of μ_{e1} and μ'_{e1} is taken and μ_{e1} is subtracted from μ'_{e1} . The absolute value is taken and divided by square root of the variation. This process undergoes repetition for all the companies of the quarter. The process is repeated for all the other 3 quarters. The value is positive as the numerator is an absolute no value and the denominator is the square root of the

variation. The value in expectation and the variance of cumulative volume (CV) in the post event period of event are as follows:

$$E=(CV_i)_{\text{post}} = (\tau-T_{+7}) \mu''_{ei} \text{ -----(9)}$$

$$\text{var}=(CV_i) = (1/N \sum_{t=1}^{30} \sigma'^2_{ei} \text{ -----(10)}$$

The test statistic becomes:

$$\hat{E}_2 = \frac{\text{var} = \sum_{i=1}^N (CV_i) - \sum_{i=1}^N (CV_i)_{\text{post}}}{\sqrt{\sum_{i=1}^N \text{var} (CV_i)}} \text{ -----(11)}$$

The value of \hat{E}_2 calculation is done for the 4th quarter first. In order to prevent any interaction between positive and negative values as before only the absolute values have been taken into consideration. The daily mean volume values of μ_{e1} and μ''_{e1} is taken and μ_{e1} is subtracted from μ''_{e1} . The absolute value is taken and divided by square root of the variation. This process undergoes repetition for all the companies of the quarter. The process is repeated for all the other 3 quarters. The value again is positive as the numerator is an absolute no value and the denominator is the square root of the variation. The difference between the two above provides the difference in volume reactions between the pre and the post announcement trading volume scenario. The same is given as \hat{E}_3 . The calculation for the same is done individually for each of the companies in the 4th quarter first. Then the total sum of the individual values is taken to observe the volume effect i.e. \hat{E}_3 is the net difference between \hat{E}_1 and \hat{E}_2 . The presence of the factor gives confirmation to the effect. In this case also the absolute value is taken as the only objective is to prove the existence of the volume effect post quarterly earnings announcement: $\hat{E}_3 = \hat{E}_2 - \hat{E}_1$ -----(8) . The final \hat{E}_3 value is shown here:

Graph 1.3

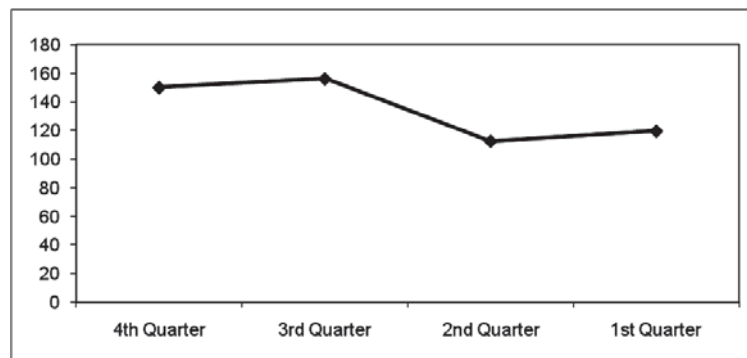


Table 1.1

4th Quarter	3rd Quarte	2nd Quarte	1st Quarter
150.1186	156.2191	112.5900	119.6847

The graph depicts existence of volume effect in case of all the 4 quarters. However, the effect is greatest in case of the 3rd quarter and least in case of the 2nd quarter. This shows the presence of volume effect after the announcement of the quarterly returns.

RESULT

Volume Effect

The trade volume also varies in anticipation of an event regardless of the news content and the way of treatment of good and bad news. As above there is no differentiation between good and bad news, the effect on volume is similar but only in opposite directions. This solves for the volume hypothesis. The pre and post volume measurement comes from the \hat{E}_1 and \hat{E}_2 and as before the final measurement comes from \hat{E}_3 . Hypothesis 1 (Null Hypothesis): That there exists no difference in trading volume from before than after the announcement of the quarterly announcement news. Hypothesis 2: That there exists a difference in trading volume from before the event than after the announcement of the quarterly announcement news. The graph proves existence of volume effect in case of all 4 quarters. The effect is greatest in case of the 3rd quarter and least in case of the 2nd quarter. This shows the presence of volume effect after the announcement of the quarterly returns. This in other words means the acceptance of the volume hypothesis and the rejection of the null hypothesis.

CONCLUSION

The release of information has an impact on volumes of stocks in the market. This process leads towards a new equilibrium in the market. This new equilibrium causes a shift in net traded volume from before the announcement to after the announcement. In case the old and new equilibrium price is same after information release then the volume shift may occur without any significant price change. In that case volume becomes an important indicator for information processing. The paper studies the volume effect in the lime light of the after math of the information release in the market. The quarterly reports were introduced in India much later in 1998. The BSE 500 has been chosen as its' a factual combination of several other smaller databases like the BSE Sensex, BSE 100, BSE 200 along with a few other companies to provide a sizeable database for the research work. The database undergoes several other filters like absence of interim dividends, stock bonus/ rights issue, splits or consolidations. It does away with amalgamation of companies and purchase/ sales of assets among others. In this way it segregates all the other effects and leaves only the ones' with quarterly reports sans all the above. This localizes the issue and makes the study easier. The sampling process picks 159 companies as the initial sample and then steadies on 154 as the final sample figure. The study uses the 4 quarters of the financial year April, 2009 to March 2010 for this purpose. The study uses absolute values of the various processes used to confirm the effects under study. The use of absolute figures cancels the opposite effect of positive and negative announcements and leaves the effect only for study. The study consists of a 30 day estimation period and a 7 day pre and post event window. The estimation period is used to calculate the standard values in this case the mean and variation of the estimation period and the mean of the pre and post event window period. The study confirms that there is a shift in the net volume from the post event window period which confirms the volume effect after the release of the earnings announcement. The paper thus completes the study of the effects of the earnings announcements in a convincing note about the existence of certain effects and evaluations there upon.

REFERENCES

Books :

- ❖ Reinard C John, (2006), *Communication Research Statistics*, SagePapers
- ❖ Abdi Hervé & Molin Paul, (2007), Lilliefors/Van Soest's, test of normality, *Encyclopedia of Measurement and Statistics*, pp 1-10
- ❖ Ali Ashiq, Klasa Sandy & Li Zhen Oliver, (2008), *Institutional Stake holdings & Better Informed Traders at Earnings Announcements*, *Journal of Accounting & Economics*, pp 47-61
- ❖ Amir Eli & Livnat Joshua, (2006), *Market Reactions to Quarterly Earnings Surprises: The Impact of Financial Statements' Data Disclosed with Earnings*, August
- ❖ Ammann Manuel & Kessler Stephan, (2004), *Information Processing on the Swiss Stock Market*, Working Paper Series in Finance, Paper No. 10, January
- ❖ Ball Ray & Brown Philip, (1968), *An Empirical Evaluation of Accounting Income Numbers*, *Journal of Accounting Research*, Vol 6, No.2 , Autumn, pp 159-178
- ❖ Bamber Smith Linda & Cheon Susan Youngsoon, (1995), *Differential Price and Volume Reactions to Accounting Earnings Announcements*, *Accounting Review*, VoL 70, No.3, July, pp 417-441
- ❖ Bankier D Michael, (1988), *Power Allocations: Determining Sample Sizes for Sub-national Areas*, *The American Statistician*, VoL 42, No. 3, August, pp 174-177
- ❖ Beaver H William, (1968), *The Information Content of Annual Earnings Announcements*, *Journal of Accounting Research*, Vol. 6, pp 67-92
- ❖ Chae Joon, (2005), *Trading Volume, Information Asymmetry & Timing Information*, *Journal of Finance*, VoL 60, No.1, February, pp 413-442
- ❖ Chandra Abhijeet, (2011), *Stock Market Anomalies, A Survey of Calendar Effect In BSE-Sensex*, *Indian Journal of Finance*, VoL 5
- ❖ Cheung CK Daniel & Sami Heibatollah, (2000), *Price and Trading Volume Reaction: The Case of Hong Kong Companies Earnings Announcements*, *Journal of International Accounting, Auditing & Taxation*, VoL 9, No.1, pp 19-42
- ❖ Chopra Navin, Lakonishok Josef and Ritter R Jay, (1992), *Measuring Abnormal Performance: Do Stocks Overreact*, *Journal of Financial Economics*, VoL 31, pp 235-268
- ❖ Cready M William M & Mynatt G Patricia, (1991), *The Information Content of Annual Reports: A Price and Trading Response Analysis*, *Accounting Review*, VoL 66, No. 2, April, pp 291-312
- ❖ DellaVigna Stefano & Pollet Joshua, (2005), *Investor Inattention, Firm Reaction & Friday Earnings Announcements* UC Berkeley & NBER/UI Urbana-Champaign, 25th of September, pp 1-45
- ❖ Frazzini Andrea & Lamont Owen, (2006), *The Earnings Announcement Premium & Trading Volume*, 6th of August, pp 1-51
- ❖ Kumar B Rajesh & M Y Ashok, (2008), *Multiple Events and Wealth Creation In India: An Empirical Analysis*, Assistant Professor, Institute of Management Technology, Dubai , UAE, Analyst , Ernst & Young, India, pp 1-21
- ❖ Mangala Deep, (2008), *Patterns in Indian Common Stock Returns - An Evidence of Day of the Week Effect*, *Indian Management Studies Journal*, VoL 12, pp 53-66
- ❖ Rao S K Chalapati, (2002), *An Overview of the Indian Stock Market with Emphasis on Ownership Pattern of Listed Companies Alternative Economic Survey: 2001-2002*

CARBON CREDITS IN INDIA

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ABSTRACT

The waste from various industries and business and human activities are the main reasons for a change in climatic conditions around the globe. Global Warming has spawned a new form of commerce - the carbon trade. Carbon Credit is a market based mechanism for controlling GHG emission, which are responsible for global warming and climate change. In light of this, In this paper an attempt is made to highlight new economic activity in a form of Carbon Credit in India.

INTRODUCTION

It is a well-known fact that waste from various industries, agricultural activities, decompositions of solid waste and increasing population, etc, are the main reasons for a change in the climatic conditions around the globe. Day by day the cycle of climate on earth is warming and led to season shifting, changing landscapes, rising sea levels, increased risk of drought and floods, stronger storms, increase in heat related illness and diseases all over the world. This warming is largely due to emissions of carbon dioxide and other Greenhouse Gases (GHG's) from human activities including industrial processes, fossil fuel combustion and deforestation etc.

Global warming has spawned a new form of commerce: the carbon trade. This new economic activity involves the buying and selling of "environmental services," including the removal of greenhouse gases from the atmosphere, which are identified and purchased by eco-consulting firms and then sold to individual or corporate clients to "offset" their polluting emissions. While some NGOs and "green" businesses favor the carbon trade and view it as a win-win solution that reconciles environmental protection with economic prosperity, other environmentalists and grassroots organizations claim that it is no solution to environmental problems such as global warming.

Carbon credit is a market-based-mechanism for controlling greenhouse gas (GHG) emissions which are responsible for global warming and climate change. Carbon credits are also known as "cap & trade regimes" where the participants can emit a set amount of carbon dioxide over the course of a given time period. If they manage to emit less than that, they can sell their remaining credits to those who are unable to get emissions down to the capped level. Amidst the growing concern and increasing awareness on the need to control pollution, the concept of carbon credit came into being as a part of an international agreement, popularly known as the Kyoto Protocol. The Kyoto Protocol, an international agreement between 169 countries. Carbon credits

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are certificates awarded to countries that are successful in reducing emissions of greenhouse gases. India comes under the third category of signatories to UNFCCC. India signed and ratified the Protocol in August, 2002 and has emerged as a world leader in reduction of greenhouse gases by adopting Clean Development Mechanisms (CDMs) in the past few years.

Carbon prices are normally quoted in Euros per tonne of carbon dioxide or its equivalent (CO_2e). Other greenhouse gasses can also be traded, but are quoted as standard multiples of carbon dioxide with respect to their global warming potential.

The price of carbon credits is determined by their demand and supply. Day-to-day trading of carbon credits takes place on the Chicago Climate Exchange and European Emissions Trading Scheme. When prices of carbon credit rise due to higher demand from industrialized nations, market incentives motivates further development of projects to increase the supply of credits.

The number of companies needing to buy credits is increasing, and the rules of supply and demand pushing up the market price, encouraging more groups to undertake environment friendly activities that create carbon credits to sell.

The price of carbon needs to be high enough to motivate the changes in behavior and changes in economic production systems necessary to effectively limit emissions of greenhouse gases.

However, the global carbon market faces two importance uncertainties which can have a substantial effect on the carbon prices:

- Trading of 'hot air' allowance by Russia and other nations of the CIS block.
- Imposition of mandatory emission reduction obligations on India and China, and subsequent ratification of the Protocol by the United States.

While the first event is keeping carbon credit price low, the second can lead to a sudden and substantial increase in carbon prices, as a major exporter of carbon credits.

CARBON CREDITS AND BUSINESS

Carbon credits create a market for reducing greenhouse emissions by giving a monetary value to the cost of polluting the air. Emissions become an internal cost of doing business and are visible on the balance sheet alongside raw materials and other liabilities or assets. International treaties such as the Kyoto Protocol set quotas on the amount of greenhouse gases countries can produce. Countries, in turn, set quotas on the emissions of businesses. Businesses that are over their quotas must buy carbon credits for their excess emissions, while businesses that are below their quotas can sell their remaining credits. By allowing credits to be bought and sold, a business for which reducing its emissions would be expensive or prohibitive can pay another business to make the reduction for it. This minimizes the quota's impact on the business, while still reaching the quota.

For example, consider a business that owns a cement plant putting out 10,000 tonnes of greenhouse gas emissions in a year. Its government is an Annex I country that enacts a law to limit the emissions that the business can produce. So the plant is given a quota of say 8,000 tonnes per year. The plant either reduces its emissions to 8,000 tonnes or is required to purchase carbon credits to offset the excess. After costing up alternatives the business may decide that it

is uneconomical or infeasible to invest in new machinery for that year. Instead it may choose to buy carbon credits on the open market from organizations that have been approved as being able to sell legitimate carbon credits.

ANALYZING INDIAN SCENARIO

India is ensuring that new technologies for energy savings are adopted so that it becomes eligible for more carbon credits. India is selling their credits to their counterparts in Europe. India is likely to emerge as the biggest sellers and Europe is going to be the biggest buyers of carbon credits. Global carbon credit trading in year 2010 was estimated at \$ 5 billion, with India's contribution at around \$1 billion. India is one of the countries that have surplus credit to offer to countries that have a deficit.

India has generated some 30 million carbon credits and has roughly another 140 million to push into the world market. Waste disposal units, plantation companies, chemical plants and municipal corporations can sell the carbon credits and make money.

India being a developing country has no emission targets to be followed. However, it can enter into CDM projects. Industries like cement, steel, power, textile, fertilizer etc emit greenhouse gases as an outcome of burning fossil fuels. Companies investing in Windmill, Bio-gas, Bio-diesel, and Co-generation are the ones that will generate Carbon Credits for selling to developed nations. Polluting industries, which are trying to reduce emissions and in turn earn carbon credits and make money include steel, power generation, cement, fertilizers, waste disposal units, plantation companies, sugar companies, chemical plants and municipal corporations.

Carbon Credits projects requires huge capital investment. Realizing the importance of carbon credits in India, the World Bank has entered into an agreement with Infrastructure Development Finance Company (IDFC), wherein IDFC will handle carbon finance operations in the country for various carbon finance facilities.

- The agreement initially earmarks a \$10-million aid in World Bank-managed carbon finance to IDFC-financed projects that meet all the required eligibility and due diligence standards.
- IDBI has set up a dedicated Carbon Credit desk, which provides all the services in the area of Clean Development Mechanism/Carbon Credit (CDM).
- In order to achieve this objective, IDBI has entered into formal arrangements with multi-lateral agencies and buyers of carbon credits like IFC, Washington, KfW, Germany and Sumitomo Corporation, Japan and reputed domestic technical experts like MITCON.
- HDFC Bank has signed an agreement with Cantor CO2E India Pvt Ltd and MITCON Consultancy Services Limited (MITCON) for providing carbon credit services. As part of the agreement, HDFC Bank will work with the two companies on awareness building, identifying and registering Clean Development Mechanism (CDM) and facilitating the buy or sell of carbon credits in the global market.

According to the latest report by research firm Crisil, Indian projects are estimated to receive 246 million CERs by December 2012, a three-fold rise from 72 million in November 2009. This will fix India's second position in the global CER market. But industrial houses in the country are discouraged due to a drastic decline in demand from European countries.

The Indian government has approved 1,400 projects as part of the CDM that could attract around \$ 6 billion (Rs 28,000 crore) into the country by 2012, through sale of CER certificates. The National CDM Authority (NCDMA) in India has accorded Host Country Approval to 1,455 projects. These projects have seen an investment of \$33.7 billion (Rs 1.6 lakh crore). If all these get registered at the CDM executive board, it will earn developers 600 million CERs by 2012. At a conservative \$10 per CER, the figure works out to a little over \$6 billion.

By, switching to Clean Development Mechanism Projects, India has a lot to gain from Carbon Credits:

- It will gain in terms of advanced technological improvements and related foreign investments.
- It will contribute to the underlying theme of green house gas reduction by adopting alternative sources of energy
- Indian companies can make profits by selling the CERs to the developed countries to meet their emission targets.

CONCLUSION

Countries are finding ways to earn carbon credits not only to reduce the amount of greenhouse gasses produced, but also to open up access to a new market. A push toward biofuels is one method being used to attain carbon credits. Vehicles using biofuels release a significantly smaller amount of carbon emissions than similar vehicles that burn the more common fossil fuels. Because of this, biofuel production is a start for countries to earn carbon credits. Utilizing other renewable energy sources such as solar and wind power is also earning carbon credits for India. Hence, India is already a strong supplier of Carbon Credits and can improve on it.

REFERENCES RECOMMENDED

1. Planning Commission Report for operationalising Clean Development Mechanism (CDM), Govt. of India
2. <http://www.pewclimate.org>
3. <http://www.unfccc.int>
4. Clean Development Project Opportunities in India, TERI New Delhi, January 2001
5. Kyoto Protocol to the United Nations Framework Convention on Climate Change, United Nations, 1998
6. http://cdmindia.nic.in/cdm_india.htm
7. Mukharji B., Emerging Issues in Accounting, APH Publishing Corporation, New Delhi, 2010
8. Shrivastav S. K., New Dimensions in Accounting, Shri Nivas Publishing House, Jaipur, 2010.

IAA NEWS

IAA General House

A meeting of the IAA General House will be held at the Venue of 35th IAA Conference, Rajkot with Prof. Umesh Holani in the Chair in Dec. 2012/Jan. 2013 with the following agenda:

1. Consideration of minutes of Jaipur AGM.;
2. Consideration of the Accounts of the Association;
3. Topics for the next IAA Annual Conference;
4. Venue of the 36th Conference;
5. Nomination of Two Senior members for panel to nominate Jr. Vice President;
6. Election of Executive Members as per rules; and
7. Any other item with the permission of the Chair.

All the members are requested to kindly attend the meeting (The date and time will be put on the IAA website in due course). Please contact Prof Prof Pratap S Chouhan for accommodation etc

IAA Executive Committee

A meeting of the IAA Executive Committee will be held at the Venue of 35th Annual Conference, Rajkot with Prof. Umesh Holani in the Chair in Dec. 2012/Jan. 2013 with the following agenda:

1. Consideration of the minutes of Jaipur EC meeting;
 2. Consideration of the Accounts of the Association;
 3. Nomination of 3 EC members for panel to nominate Jr. Vice President;
 4. Venue of the 36th Conference;
 5. Consideration of election to EC as per rules;
 6. Co-option of
-

IAA Special AGM

A meeting of the IAA Special AGM will be held at the Venue of 35th Annual Conference, Rajkot with Prof. Umesh Holani in the Chair in Dec. 2012/Jan. 2013 with the following agenda:

1. Consideration of Amendments to the Constitution; and
2. Any other item with the permission of the Chair.

All the members are requested to kindly attend the meeting (The date and time will be put on the IAA website in due course).

IAA NEWS

TOPICS FOR 35TH ALL INDIA ACCOUNTING CONFERENCE-RAJKOT

International Seminar on Accounting Education and Research

With Prof. Harish S. Oza of Ahmedabad as Chairman

Technical Session-I : **Shareholder Value Creation and Measurement**

With Prof B. Ramesh of Goa as Chairman

Technical Session-II : **Ethical Issues in Accounting and Finance**

With Prof Nageshwar Rao of Ujjain as Chairman

Technical Session -III : **International Financial Reporting Standards and India**

With Prof. NM Khandelwal of Rajkot as Chairman

YOUNG RESEARCHER AWARD - 2012

IAA invites proposals for Young Researcher Award - 2012, on the Research Workdone during the last five years in the area of Accounting by scholars/faculty members of not more than 35 years of age as on 31-12-2011, for the consideration of IAA Young Researcher Award-2012. Proposals are invited only from the life members of IAA.

Proposals may be submitted on or before 25th Oct. 2012, to

Prof. D. Prabhakara Rao

General Secretary - Indian Accounting Association

Professor & Dean, Faculty of Commerce & Management Studies

Andhra University, Visakhapatnam-530003

Email: dean.dcms.au@gmail.com Mobile: 9440131863

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Inaugural Ceremony of IAA Kota Branch

IAA Kota Branch (Rajasthan) has been formed by the members of Kota University region. Professor Umesh Holani, The President, IAA inaugurated the IAA Kota Branch on 13th March '2012 at Saraswati Bhawan, University of Kota, Kota (Rajasthan). The Programme was started with the welcome speech of Dr. Mrs. Meenu Maheshwari, ACMA & Head, Department of Commerce & Management, University of Kota, Kota. Dr. Maheshwari put her observations and said that in current scenario, enrolment in commerce & its related fields has been increasing day by day with the tremendous increase in number of students in colleges and Universities. It is a big Challenge for us to be able to provide the required facilities in order to satisfy the student's requirement Hence, IAA Kota Branch will be useful for the scholars, researchers, teachers and professionals in many ways through its activities. In inaugural speech chief guest declared the following executive committee of IAA Kota Branch.

President	:	Dr. Ashok Kumar Gupta Senior Faculty Membe, Deptt. of ABST Govt.Commerce College Kota (Raj.)
Vice President	:	CMA J. P. Sarada CV
Chairman	:	ICAI, Kota Branch
General Secretary	:	Dr. Mrs. Meenu Maheshwari ACMA & Head DEPARTMENT OF COMM. &MANAGEMENT UNIVERSITY OF KOTA, KOTA (RAJ.)
Joint Secretary	:	Mr. Satyawar Sharma Geral Secretary ICAI, Kota Branch
Treasurer	:	Dr. Miss Nisha Meena

Professor Umesh Holani congratulated the executive committee and assured to extend his support in smooth running of branch activities. Addressing to the member Dr. Ashok Kumar Gupta, President IAA Kota Branch Pointed out that this is also tremendous sense of responsibility goes with us. Dr. Gupta requested to all the members to continue to provide constructive support through suggestions to lift the commerce subject to further height and glory. He declared that seminars and workshops will be organised to keep members updated and well synchronized with the latest developments. Dr. S. C. Rajora, Director (Research), University of Kota, Kota chaired the session. He invited commerce persons to work jointly with sociology persons.

At the end of the programme CMA J. P. Sarada Vice President, IAA Kota Branch presented the formal vote of thanks to all dignitaries and members. Dr.Mrs. Meenu Maheshwari Coordinated the programme.

At the end of the programme CMA J. P. Sarada Vice President, IAA Kota Branch presented the formal vote of thanks to all dignitaries and members. Dr. Mrs. Meenu Maheshwari Co-ordinated the programme.

Dr. Mrs. Meenu Maheshwari
General Secretary

Round Table Discussion

IAA Kota Branch organised a 'Round Table Discussion' programme on 14 June 2012. The topic for the discussion was 'Accounting Thoughts in Ancient India: Some Excerpts from Literature'. Prof (Dr.) G. Soral, Director MFC programme, Mohan Lal Sukhadiya University, Udaipur key note speaker of the programme in his Speech explained background and objectives of the topic. He said that ancient Indian Literature encompasses profound Wealth of Knowledge and has been appreciated all over the world. To unfold accounting thought in ancient Indian Literature and to identify ancient Indian accounting thought according to contemporary definitions of accounting are main objectives of the discussion. Prof. Soral told that enough material is available in ancient Indian Literature regarding Government Accounting, Government Auditing, Taxation, Financial Accounting, Management & Cost Accounting, Responsibility Accounting, Human Resource Accounting and Eternity Accounting. Initiating the discussion he stated that there was Systematic maintenance of accounts of govt. departments. Accounts maintained and reconciliation done daily, for group of five days, fortnightly, monthly, four monthly and annually. Separate books of accounts maintained for income and expenditure. Management audit related subject matter is available in the conversations of Sri Ram and Bharat in Ramayan and Narad and Yudhishtir in Mahabharat. The Rigved contains terminology such as inspection, testing, checking etc. Rigveda mentions collection of taxes from the subjects, signifies ancient existence of such systems. Duties of tax collector, tax administration, different types of taxes and tax exemptions have been explained in details in the ancient Literature Like, Kautiliya Arthashastra.

The members were invited to raise their queries and to put their views on the topic. Each and every participant raised questions and put their views. Some of them were astonished and ignorant about the legacy of Indian Literature. Dr. Meenu Maheshwari, Head Department of commerce and Management, University of kota, Kota and General Secretary, IAA Kota Branch Welcomed Key note speaker and participants. She told that this round table discussion programme will clear all the doubts, meanings and interpretations about the ancient Indian Literature regarding accounting field. She appealed every member to participate in such programmes to develop an academic zeal. Dr. Ashok Kumar Gupta, President, IAA Kota Branch chaired the session and stressed to work on Eternity Accounting. Mrs. Pragya Dheer, MS. Nisha Meena, Ms. Chandan Medatwal, Mrs. Priya Chaudhary, Ms. Sevyar, Mr. Nikhil Bharadwaj, Mr. Hemant made the discussion very much live and fruitful through raising many issues in this connection.

Dr. Mrs. Meenu Maheshwari
General Secretary

REPORT OF MEETING

A meeting of IAA Standing Committee on Accounting Standards was convened at 11.00 a.m. on December 18, 2011 at the XXXIV Annual Conference of the IAA at Jaipur.

The deliberations, proceedings and recommendations of the Committee may be recorded as below:

1. The Ministry of Corporate Affairs, Government of India has already notified Indian Accounting Standards after convergence with IFRS to be implemented from April 1, 2012(with a few exceptions kept pending). There are available on its website and notification published by ICAI Magazine the Chartered Accountants. The Committee unanimously recommends that study of Indian Accounting Standards be included in M.Phil. and M.Com. curriculum at the earliest by Indian Universities.
2. The Committee appreciates the steps already taken by Mohan Lal Sukhadia University, Udaipur and Jai Narain Vyas University, Jodhpur to include IFRS at M.Com. level and M.Phil. level and IAA Research Foundation, Calcutta to invite research proposals on IFRS. It recommends other universities to follow these steps.
3. The Committee unanimously recommends – that IAA local chapters should organize Seminars/Conferences/Workshops on IFRS to spread awareness about it. FDP's for updating of teachers may also be undertaken. Research and publications in English/Hindi and regional languages on IFRS be encouraged and standard text books based on IFRS be prepared and published at various Indian Universities.

The meeting ended with thanks to the chair.

Dr. N. M. Khandelwal
(Chairman)

Dr. Lalit Gupta
(Co-ordinator)

National Conference On
Global Issues and Challenges in Accounting and Finance
October 1-2, 2012.

The Indian Accounting Association, Gujarat Branch in collaboration with Post-Graduate Diploma in Investment & Financial Analysis (P.G.D.I.F.A.), S.D. School of Commerce, Gujarat University, Ahmedabad is organizing National Conference on “Global Issues and Challenges in Accounting and Finance” at Ahmedabad on **October 1-2, 2012.**

The conference will provide an important forum for the interaction of ideas and information between academicians, professionals, industrialists and practitioners in order to enhance the understanding of Global Issues and Challenges in Accounting and Finance.

The Theme chosen for deliberation in “Global Issues and Challenges in the Accounting and Finance” at the conference which is divided in **Three Technical Sessions** as under:

- I. Emerging Issues in Capital Market**
- II. Global Climate Change and Environmental Accounting & Reporting**
- III. Share Holder Value Creation & Measurement**

The following are the important dates:

Paper and Abstract Submission: September 17, 2012

Acceptance Notification: September 21, 2012

Registration Deadline: September 25, 2012

NO SPOT REGISTRATION.

ACCOMODATION WILL NOT BE PROVIDED TO DELEGATES

Registration Fee: (Without Accommodation)

₹ 700/- For Members of IAA ₹ 1200/- For Non Members

₹ 1500/- For Corporate Delegates ₹ 700/- For Each Accompanying Person

₹ 200/- For Student

HOW TO PAY REGISTRATION FEE

- 1) By sending at par multicurrency cheques or Demand Draft in favour of “Indian Accounting Association, Gujarat Branch” Payable at Ahmedabad, Gujarat.
- 2) Participants can also REGISTERED online on <http://tinyurl.com/iaapgdifa>
- 3) Payment may also be directly deposited/online wire transfer in Branch Account as per following details of the bank.

Account Name	Indian Accounting Association, Gujarat Branch
Bank Name & Branch	State Bank of India, Guj. Univ. Br., Ahmedabad
Account Number	10298780904
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January 5 & 6, 2013 (Saturday & Sunday)

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The Indian Accounting Association Research Foundation (IAARF) will hold its Eleventh International Accounting Conference in Taj Bengal Hotel, Kolkata 700 027, on Saturday and Sunday, the 5th and 6th January, 2013 in collaboration with Deloitte, and Eastern Institute for Integrated Learning in Management (EIILM). Papers are invited on the following **topics**:

- Implementation of IFRS — Learning from the International Experience
- Corporate Sustainability
- Eradicating Corruption: Enabling Laws and Best Practices
- Corporate Governance and Firm Performance
- Net-Banking / On-line Banking – Challenges and Opportunities
- Financial Inclusion
- Accounting and Financial Management of Public Sector Entities
- Role and Responsibilities of Internal Audit in the Changing Scenario
- Teaching and Sensitization of Accountants about Professional Ethics
- Modern Business Reporting
- Emerging Issues in Capital Market
- The Attest Function – the Quest for Assurance
- Global Climate Change and Environmental Reporting
- Accounting Education and Research in changing perspectives
- Contemporary Issues in Taxation
- Other Related International Business Topics

Deadline for Registration : December 14, 2012 **Home Page :** www.iaarf.org

Contact Persons for Sending Queries, Papers, Registration of Interest

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Printed in India by Dr. D. Prabhakar Rao at D. N. Enterprise, Ahmedabad and published by him on behalf of the Indian Accounting Association, Udaipur-313001.